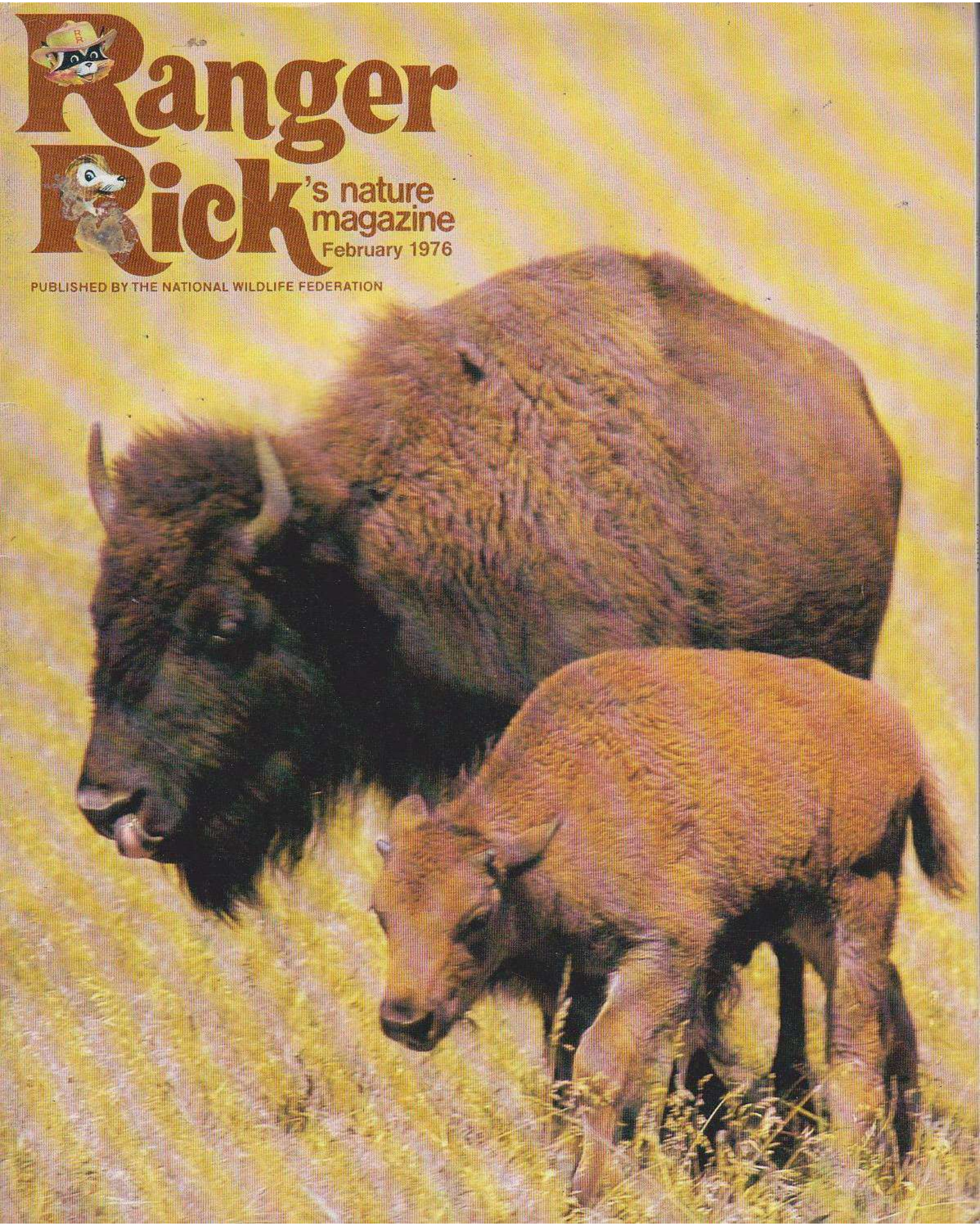
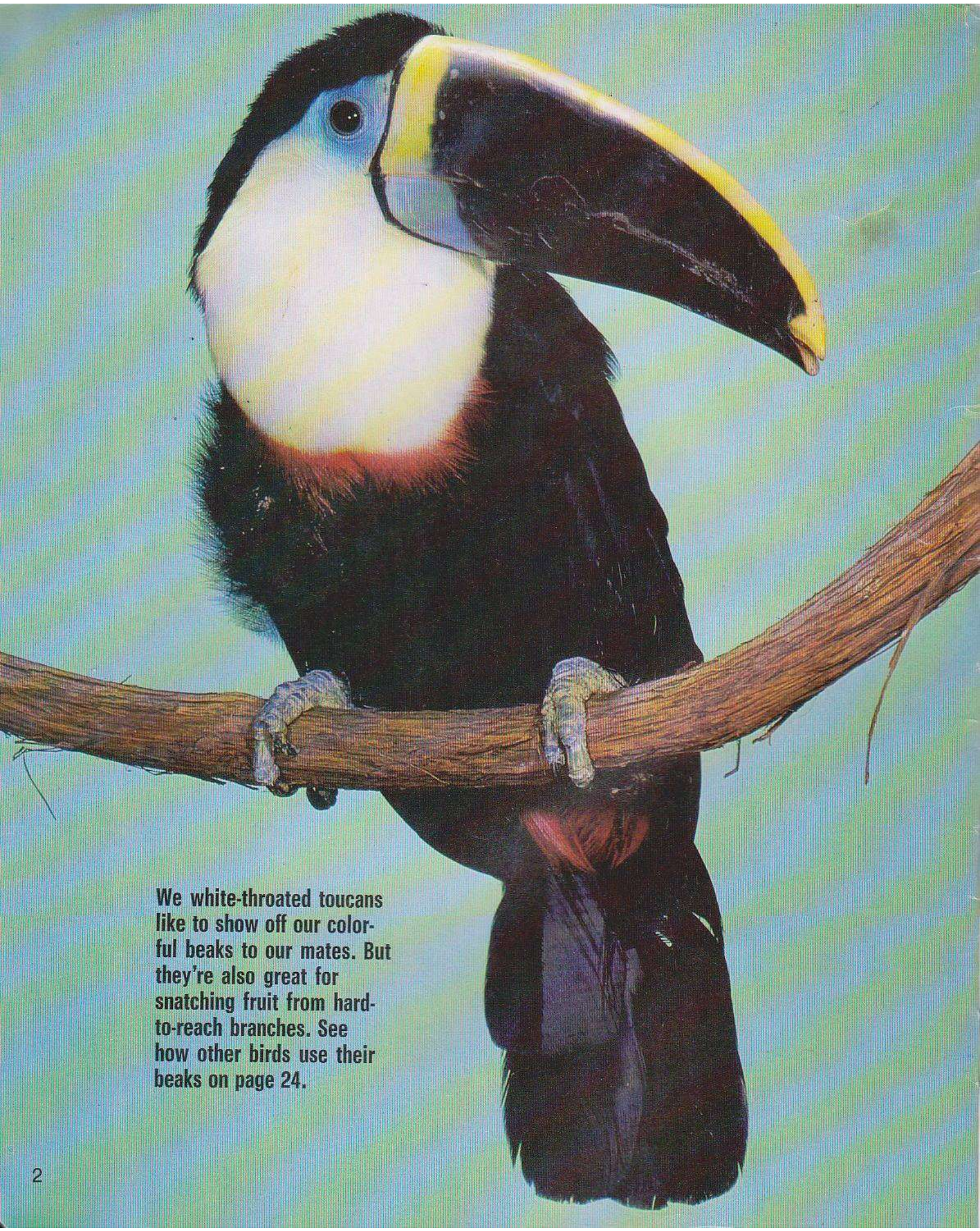
Ranger Rick's nature magazine

February 1976

PUBLISHED BY THE NATIONAL WILDLIFE FEDERATION





We white-throated toucans like to show off our colorful beaks to our mates. But they're also great for snatching fruit from hard-to-reach branches. See how other birds use their beaks on page 24.

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RANGER RICK'S PLEDGE

I give my pledge as a member of Ranger Rick's Nature Club

To use my eyes to see the beauty of all outdoors.

To train my mind to learn the importance of nature.

To use my hands to help protect our soil, water, woods and wildlife.

And, by my good example, to show others how to respect, properly use and enjoy our natural resources.

_____

Your Name

Member of EDPRESS
Distinguished Achievement Award

Dear Rangers: I just heard a great story about how the cougar came to be called "mountain lion." Here's how it goes: The early colonists saw their first cougar skins when Indians brought them to the settlements for trade. The colonists imagined that they came from the same kind of lions that lived in Africa—only all females. They wondered why the Indians never brought them male lion skins with their thick manes. The Indians, seeing a chance to fool the colonists, told them the males were too fierce and lived too far up in the mountains for hunting. So it was by mistake that the colonists named the cougar "mountain lion." *Ranger Rick*

Photos by Stewart Cassidy; Wilford L. Miller

TAWNY OF THE MOUNTAINS

by Keith Hay

It was a cold, snowy April morning in the Colorado Rockies. High on the mountainside, overlooking a small settlement, was a snug cave. Deep inside, Tawny, the mountain lion, and his brother and sister were busy nursing. Their mother gently licked the three spotted balls of fur as they fed. The kittens' eyes were shut tight and their bellies bulged with milk.

Within two weeks the kittens opened their eyes. Soon they were playing as only mountain lion kittens play.

One day while their mother was out hunting, the kittens walked to the mouth of the cave. Below them were trees and rocks covered with snow. But the eyes of the young lions were still very weak. They squinted in the bright light and saw only shapes and shadows before scampering back into their den.

Soon the snow began to melt. The long winter was finally over. Birds, squirrels, mice, rabbits and marmots were busy.

The tiny kittens grew stronger on Mother's rich milk. When they were six weeks old they were the size of full-grown house cats. Mother began to bring them fresh meat to eat. The kittens loved to lie on the sunny rocks outside their cave and wait for their mother to return from hunting. They practiced catching grasshoppers and mice. Once Tawny caught a baby rabbit.

Before long the kittens were joining their mother on short walks. She would

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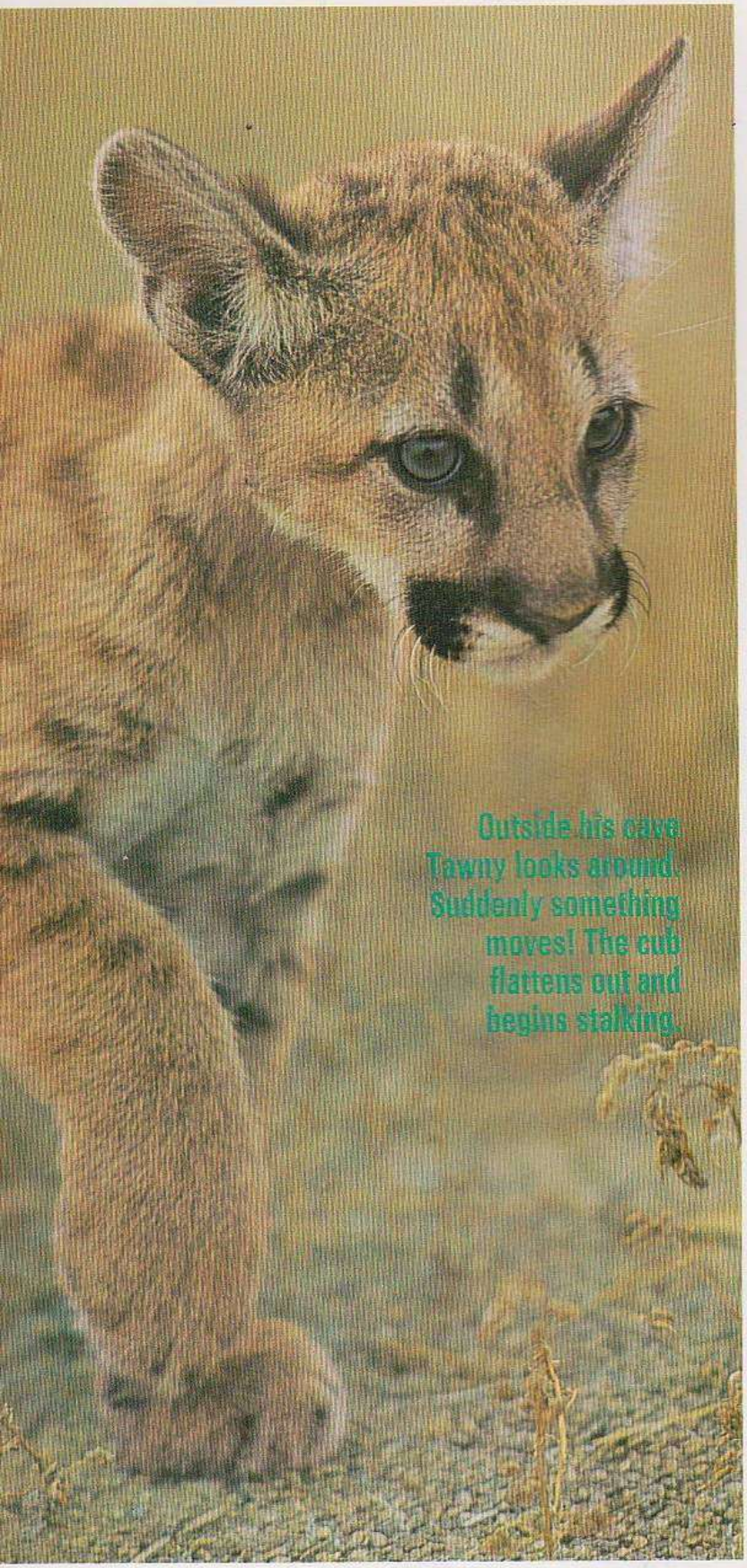


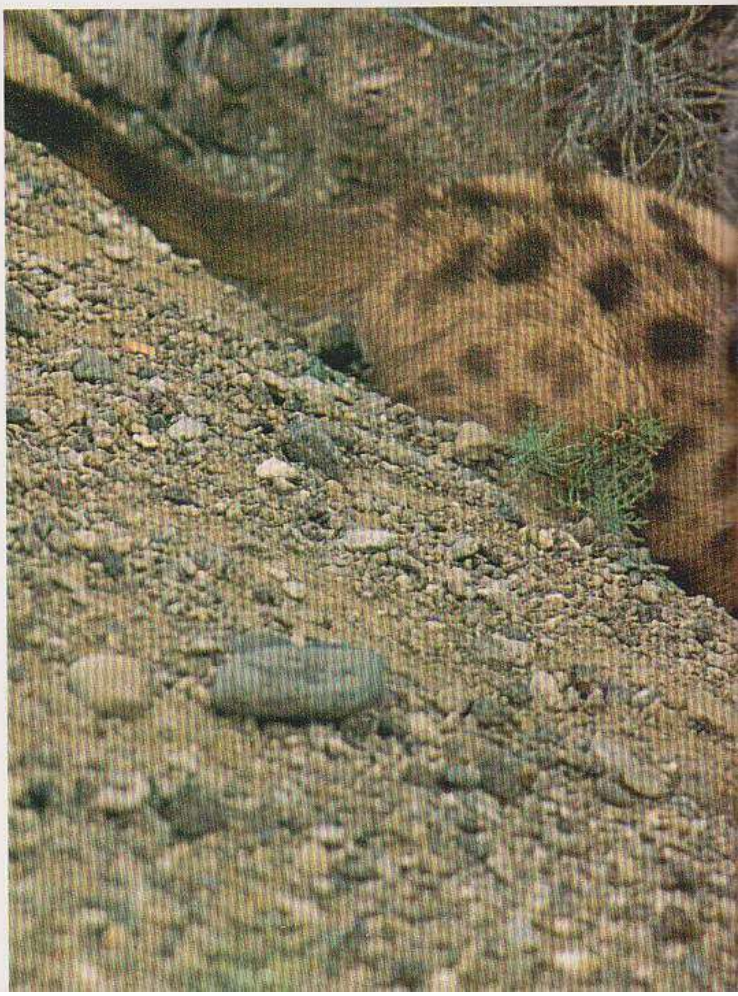
Photos by Sumner & Wilkinson/Amwest (6-8)

lead them to her freshly killed prey and they would have a feast. Tawny's mother was kept very busy finding food for her growing, always hungry kittens.

One day while Mother was away hunting, the kittens saw a huge bird circling overhead. It was a golden eagle, dropping lower and lower. Suddenly it folded its wings and dived straight toward them. Tawny and his brother and sister dashed for their cave. But Tawny's smaller sister was too slow. The eagle caught her and flew off, holding the kitten tightly in its giant claws. When Mother lion returned, she saw only two pairs of frightened eyes in the shadows at the far end of the cave.

Tawny and his brother continued to grow. As fall came the dark spots began to fade from their fur. Now they rarely returned to their cave.

Hunting became a serious business to the



two young cougars. The trips with Mother were becoming longer and harder. They already knew how to stalk and catch small prey—*keep body low, walk softly, wait, then leap quickly.* But now Mother was teaching them how to catch bigger, smarter prey—they had much to learn.

One day as Tawny watched carefully from the bushes she stalked a deer. She approached it slowly, moving only when it was busy eating. When she was close enough she dashed toward the startled deer and sprang onto its back. One hard bite in the neck and the struggle was over.

Tawny then joined his mother and ate his fill. Mother carefully covered the remains of the deer with branches and soil. She would return to feast another day.

On a chilly autumn morning the quiet was broken suddenly by strange sounds. Tawny's ears stood up, his eyes strained. Coming from the valley below were two Indian boys and their dogs. They were learning to hunt because their future livelihood would depend on it. Tawny did not know about Indians and their dogs. But Mother did. She quickly nudged her youngsters under a big bush. Then she raced up the mountainside and into the forest.

The howling became louder and louder. It was too much for Tawny's scared brother. He burst from the hiding place and ran up the nearest tree. Tawny was terribly scared too. He wanted his mother, so he dashed up the mountainside after her. He did not stop to look back until he had reached the tall trees.

The dogs, barking louder than ever, stopped under the tree that Tawny's brother had climbed. The Indians quickly shot the young lion with their arrows and carried him away.

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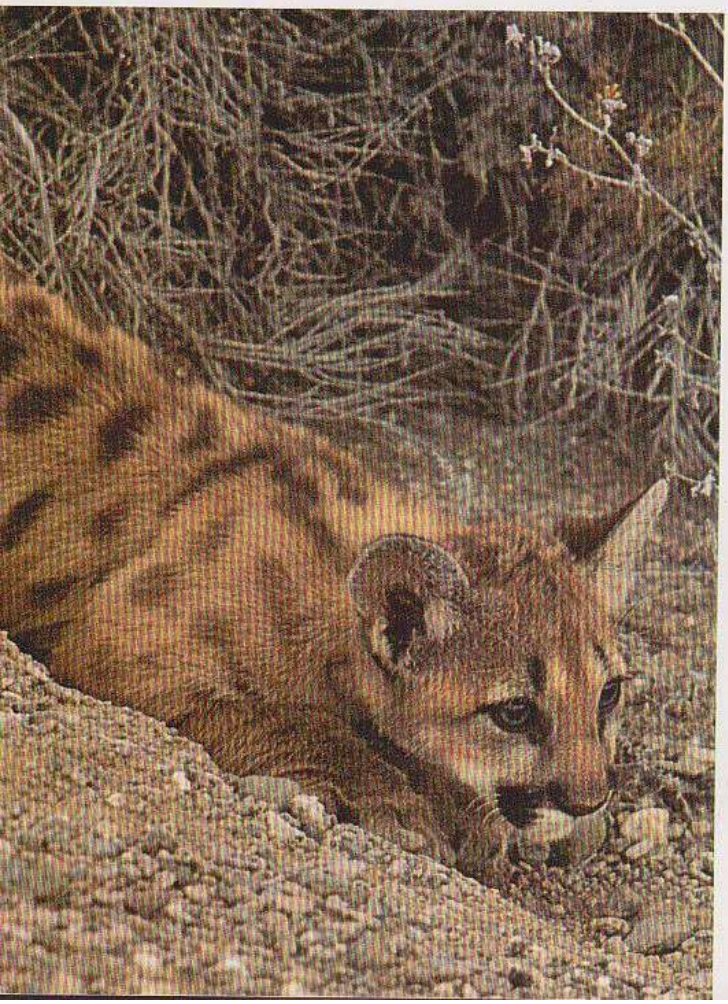
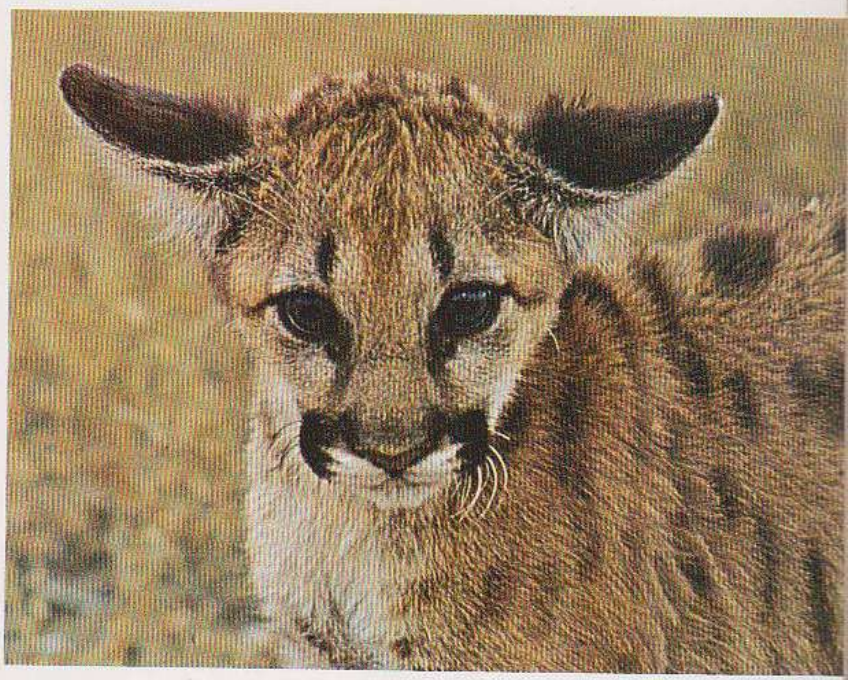




It was a mouse. A fast mouse!
It got away. Never mind.
Tawny will try again.

Tawny felt alone and scared. He looked around for his mother. Suddenly from among the trees she gave a low call. Tawny raced to greet her, purring loudly.

In the months that followed, Tawny and his mother hunted deer, porcupine and rabbit. Now and then they would kill a young elk or mountain sheep. They traveled widely, but they would always come back to their valley.

One afternoon when Tawny was two years old he heard a terrible scream. It was another mountain lion—a great big one.

As the lion slowly approached his mother, she reacted very oddly. Instead of growling, she walked up to him and rubbed her nose gently against his.

Soon Tawny's mother and the big lion disappeared. They would mate and she would raise another family.

Once again Tawny was alone, but now he could take care of himself. He weighed almost 90 kgm (200 lb.), and he had become a good hunter.

One day the following spring, Tawny smelled a strange, exciting scent. He gave a quiet half-purr, half-growl as he began to follow the scent across the valley. Suddenly Tawny was surprised by another lion. His ears perked as the lion came closer. Tawny crouched low and waited. The other lion walked up to Tawny, purring softly, and began to lick his face. Tawny had found a mate. *The End*

From a rocky perch, a full-grown Tawny spies a strange cougar. He screams to warn it away.

PALACE IN A POND

by Deborah Cavel Greant

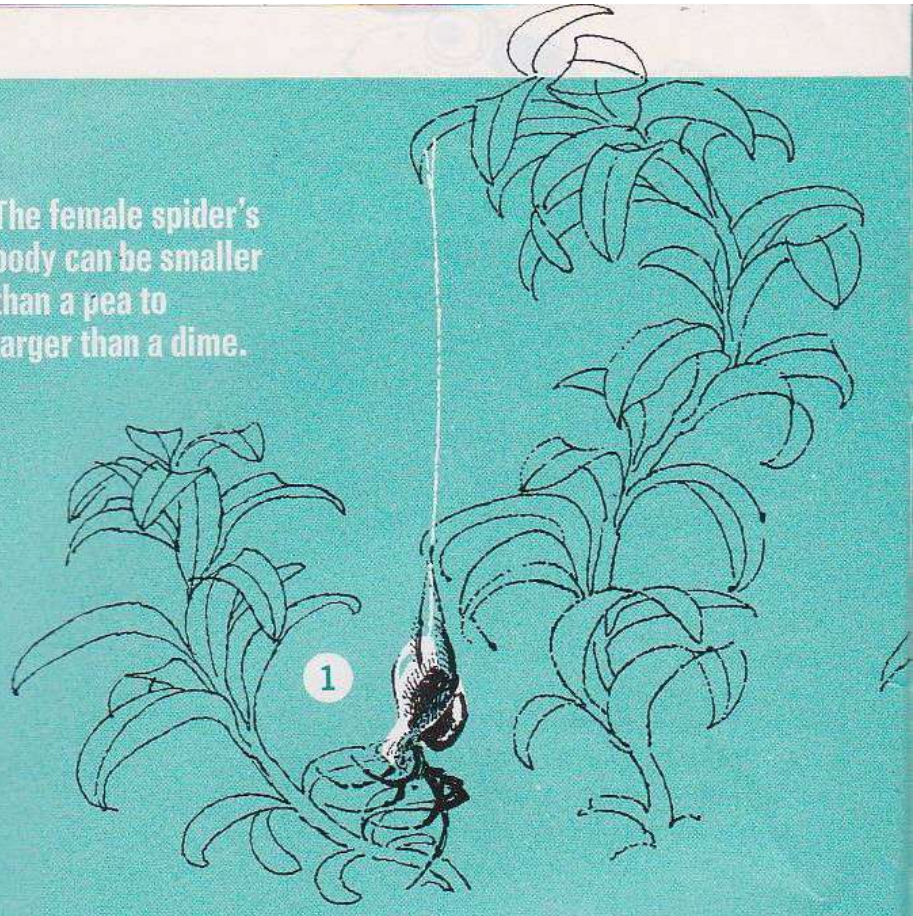
You live in a silver palace, built in a cool green pond. Your stairway is attached to a waving water plant, and your sky is a mirror, reflecting all you see.

Your neighbors are minnows, tadpoles, back swimmers and snails. Sometimes a frog splashes past, or a turtle swims overhead.

What are you?

Please turn the page

The female spider's body can be smaller than a pea to larger than a dime.



You are a little creature called a water spider, whose "palace" is no bigger than a thimble and is about the same shape. This spider builds its home underwater among the weeds and grass that grow a few feet down in quiet ponds of Europe and Asia.

"Well," you say, "I thought spiders spun webs!" And so they do, and so does this one! Its palace is the only underwater web in the world.

The water spider's body usually measures about 10 millimeters (1/3 inch) and has long legs. It is covered with dark markings and furry gray hair.

Before spinning its web the little spider must first find just the right building site **(1)** below the water's surface next to a clump of weeds. It spins a thread and attaches it to one of the weeds near the bottom of the pond. The spider then pulls the thread up to the surface and attaches it to the weed at the spot where it leaves the water. This thread is a "handrail" the spider will use to go up and down quickly.

Back near the bottom, the spider spins more threads, attaching them to nearby weeds to form a rectangle. Inside this framework the spider weaves a tight little carpet **(2)**. When the carpet is finished the spider goes "hand over hand" up the handrail to the surface.

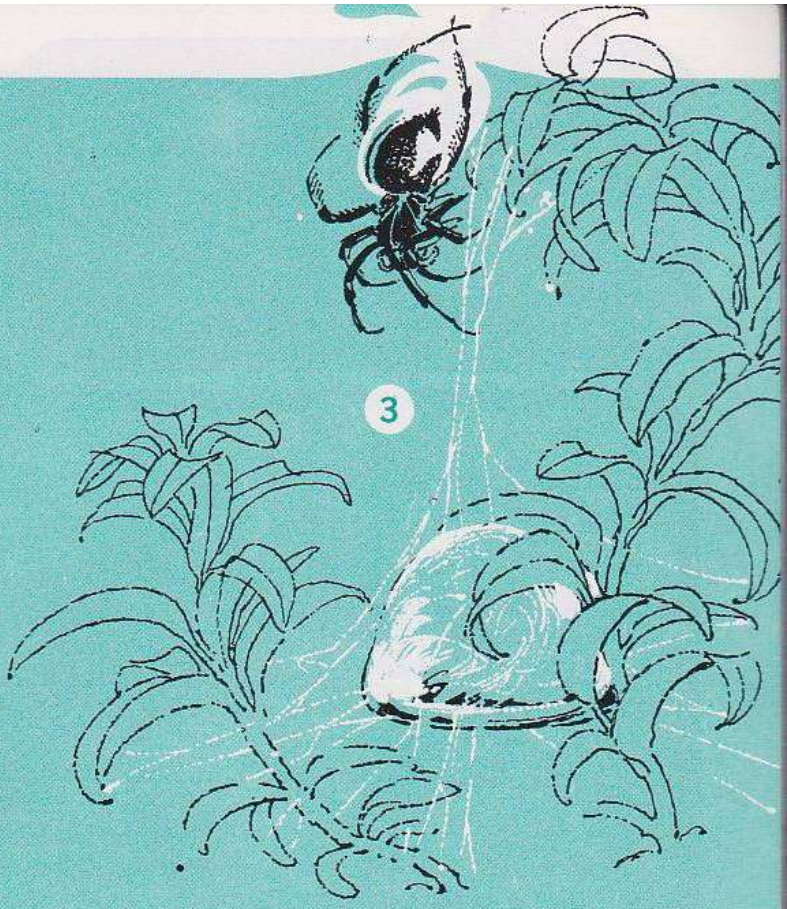
Now the spider turns around and sticks its abdomen above the water. Quickly it jerks its abdomen down with a *plop* **(3)** and traps a silvery bubble of air underneath. Then, holding onto the bubble with its back legs, the spider climbs down the rope.

Once underneath the carpet, the spider turns head up and the bubble slides out, catching under the carpet. The spider brushes off tiny bubbles that cling to its body hair, and adds them to the larger bubble.

Up the handrail and back again with another bubble goes the spider, until the carpet bulges up into a thimble shape. Now the spider has a dry home with an all-around view. When the air supply gets stale, the spider goes up top for a fresh bubble or two.

The water spider catches and eats tiny fish, tadpoles and insects. During the day it sits with its front legs outside the bubble, rushing out if any prey comes close. The spider brings its catch back into its bubble house to eat.

At night it leaves its home to hunt. Though it can hold its breath for 20 minutes at a time, it

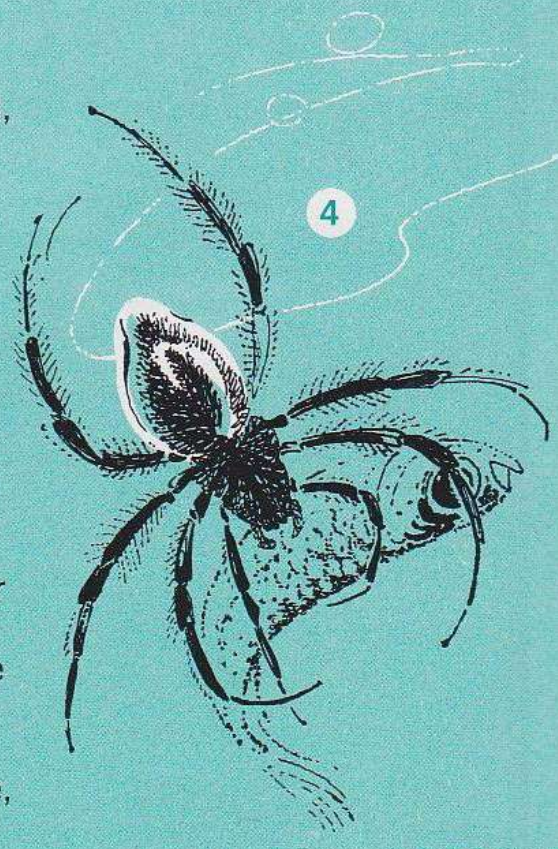


cannot breathe underwater. This is why the spider always brings its catch back home.

The male water spider **(4)** is twice as large as the female, which is unusual, for most male spiders are much, much smaller than their mates. The female spider lays 50-100 eggs after mating and wraps them in a silk bag, which takes up the top half of her home. Three to four weeks later the baby spiders chew through the bag and wait for their mother to bring them tiny insects to eat. They grow quickly and before long the house is far too crowded for so many.

The time has come for the little ones to build their own silver palaces. They leave the bubble house. Some stay in the same pond, others climb the "handrail," crawl out onto a tall weed and spin a thread. The wind catches the thread like a kite, and the little spider goes whizzing away. The lucky ones will drift to a new pond. The unlucky ones will die.

When winter comes and ice covers the pond, the water spider builds a winter bubble in a deep part of the pond. Its summer house had no door, but for the winter house the spider spins a door from the inside, making the house snug and cozy. Then it curls up into a tight ball and goes to sleep until spring. *The End*



Drawings by Arabelle Wheatley

HOLLOW OAK BOOK NOOK

THE SEAL AND THE SLICK
by Don Freeman.

Soft water-color paintings and moving text capture the excitement and drama of a seal pup who becomes trapped in a disastrous oil spill. He is saved by a little boy and little girl who find him and help him return to his home in this thrilling tale of adventure that, for one seal at least, turns out happily. 34 pages, 11½″ x 8¾″, ages 4-8.

62195-2GB Non-members $5.95
62195GB MEMBERS' PRICE $4.75

WHEN THE WHALE CAME TO MY TOWN
by Jim Young.

Here's an unforgettable story about a young boy who discovered a huge live whale stranded on a beach near his home in New England. It really happened — and the unique original photographs make this beautiful tale of a boy's encounter with nature come alive. 36 pages, 8½″ x 6¾″, all ages.

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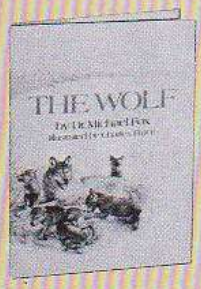
THE WOLF
by Dr. Michael Fox.



An exciting tale of a family of wolves and their struggle to survive in the wild Alaskan Brooks Range. This fascinating true-to-life account of one year in their lives tells how cubs are raised, how they learn to hunt, avoid predators, and more. A wonderful book of adventure about an often misunderstood animal. Illustrated. 95 pages, 8¾″ x 6½″, ages 8-14.

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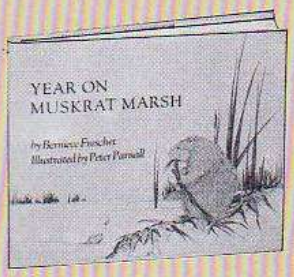
YEAR ON MUSKRAT MARSH
by Berniece Freshcet.



A chronicle of the half-wet, half dry world of the marsh. Ducks and deer, moose and mice, bullfrogs and birds, and many other animals move to the rhythm of the changing seasons. Elegant drawings show the beauty of this watery world. 56 pages, 9¼″ x 8″, ages 8-12.

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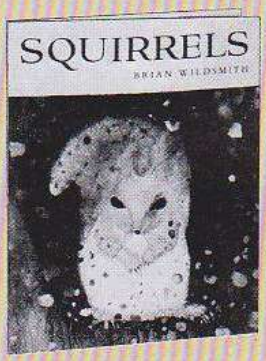
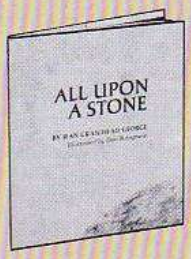
SQUIRRELS
by Brian Wildsmith.



A noted children's book author takes a delightful look at the character and habits of these fascinating little animals. Full-color illustrations show squirrels jumping from tree to tree, frolicking on trunks and boughs, hiding nuts for winter, and nesting high in the treetops. 32 pages, 11¼″ x 8¾″, all ages.

68626-2GB Non-mem. .. $5.95
68626GB MEMBERS' PRICE $4.75

ALL UPON A STONE
by Jean Craighead George.



Who would think that an ordinary stone lying by a stream could be bustling with life! An enchanting look at a child-sized part of our natural world — filled with ferns, mosses, fairy shrimp, and one fuzzy mole cricket traveling across the old worn stone. Full-color illustrations. 48 pages, 6¼″ x 7¼″, ages 6-9.

63881-2GB Non-members .. $3.95
63881GB MEM. PRICE .. $3.15

HOUSE SPARROWS
by J. J. McCoy.

The intriguing story of the hardy little bird that "Sparrow Jack" brought from England in 1869 to fight the inchworms that were destroying the trees and shrubs of Philadelphia. Praised when they ate harmful insects, condemned when they turned to grain and fruit buds — here is the fascinating tale of their history and habits. 126 pages, 6¼″ x 9¼″, ages 8-12.

63872-2GB Non-members .. $5.95
63872GB MEM. PRICE .. $4.75

 Canadian Residents — When ordering please indicate book title and number. Add 85¢ postage and handling. Duty is payable upon delivery. Send your order to **National Wildlife Federation, 1412 16th Street, N.W., Washington, D. C. 20036.**

Ollie finds a way to help Ranger Rick!

It was a beautiful day in Deep Green Wood. Many of the animals were playing tag and having a great time racing back and forth, hiding behind trees, and under bushes. Ollie Otter was "it" and trying desperately to catch Sammy Squirrel. But little Sammy was too quick and kept dodging just out of reach.

"Time out," Ollie gasped. "I need a rest."

When Ollie finally got his breath back, he looked around and saw Ranger Rick and Barbara Bear busily working on Ranger Headquarters. He also noticed that hanging on their chests was a beautiful button.

"Hey, Rick," called Ollie. "What's that great button you and Barbara are wearing?"

Rick paused in his work and replied, "this is the new RANGER RICK MEMBER-GETTER BUTTON." (Medal of Honor)

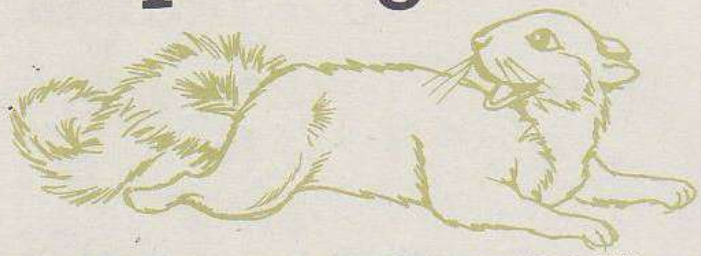
"It looks great, but where is mine?" Ollie asked admiringly.

"Oh, you have to earn this button," Rick answered.

"What do you mean? I've been a member since the club first started," Ollie complained.

"You sure have," said Rick. "You have a lot of fun in the club and you lead everyone in using our beautiful Deep Green Wood, Clear Creek and Shady Pond. But you haven't gotten us a single new member. Barbara here got us five new members just last week.

"The only way our club is going to grow so that we can do the job we have to do to manage our natural resources is to get more members. I designed this button so that we could recognize those members who are helping us to grow."



"I've talked to a lot of friends," grumbled Ollie. "How do I know if they've joined or not?"

"Well, you don't," replied Rick, "but now we have a form that will tell us. (There's one of these forms *on the back* of this page.)

Fill in your name and address. Then get a friend who wants to join to fill out the form,too. And when your friend sends in the form with $7.00 dues, we'll give *you* a RANGER RICK MEMBER-GETTER BUTTON!

"Hey, that's great!" Ollie said happily. "Give me lots of forms. I'm going to be Ranger Rick's number one member-getter!"

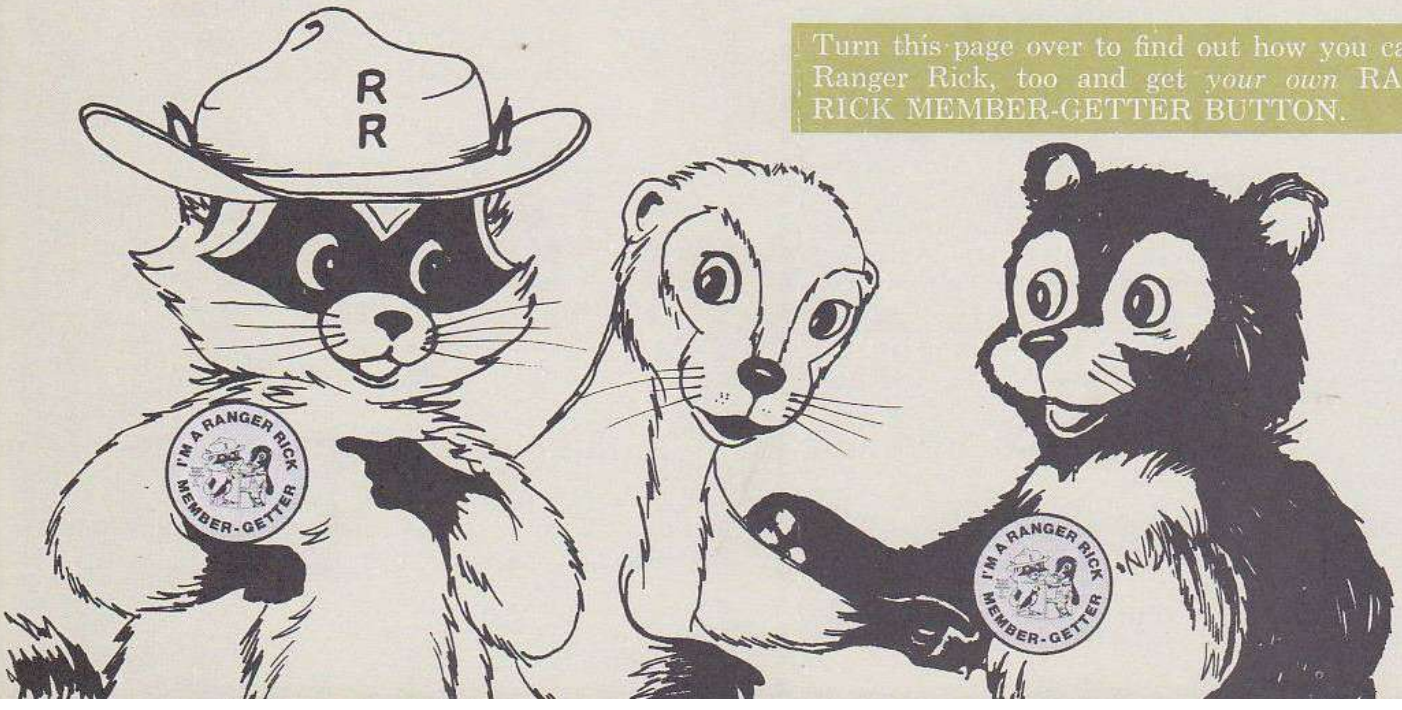
"You'll really have to work hard," laughed Rick. "Barbara and her girlfriends have been very busy and say they can sell lots more memberships than you boys. She says you're too busy playing all the time."

"Oh boy, that's a real challenge," growled Ollie. "We can have fun getting new members, too, so we'll just see what happens."

"Very good," Rick added, "but don't forget we're all working together to help the club grow so we can help nature. Work hard but have fun!

"EVERY MEMBER GET A NEW MEMBER AND KEEP OUR COUNTRY CLEAN, STRONG AND INDEPENDENT."

Turn this page over to find out how you can help Ranger Rick, too and get *your own* RANGER RICK MEMBER-GETTER BUTTON.



HELP RANGER RICK!
Be a Ranger Rick Member-Getter!

HERE ARE ALL THE THINGS RANGERS ENJOY:

. . . Ten fun-filled, fact-packed issues of Ranger Rick's Nature Magazine.

. . . PERSONAL MEMBERSHIP CARD to carry in wallet or purse and show friends and teachers.

. . . COLORFUL DECAL for bikes, windows and mirrors.

. . . HOLLOW OAK BOOK NOOK where you can order specially-selected nature books and records at big discounts.

. . . WILDLIFE CAMP for a fun-filled, ecology vacation. Rangers between 8 and 12 can attend at a reasonable cost.

. . . CONSERVATION SUMMIT vacations. For you and your family—outdoor, educational holidays at low prices.

Here's All You Have To Do To Get *Your* RANGER RICK MEMBER-GETTER BUTTON:

—Use the form at the bottom of this page. (This is the same form Ranger Rick told Ollie about in the story on the other side of this page.)

—Fill in YOUR name in the "MY NAME" part first, so we will know where to send your RANGER RICK MEMBER-GETTER BUTTON.

—Then get a friend who wants to join Ranger Rick's Nature Club to fill out the "NEW RANGER" part and send us the form with $7.00. Or you can give a friend a membership as a gift.

Send a RANGER RICK MEMBER-GETTER BUTTON to: 071021

MY NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Send Ranger Rick Membership to: 071021

NEW RANGER _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Is this a gift? ☐ Yes ☐ No
(If it is a gift, we will send you a special Ranger Rick gift card to send to your friend!)

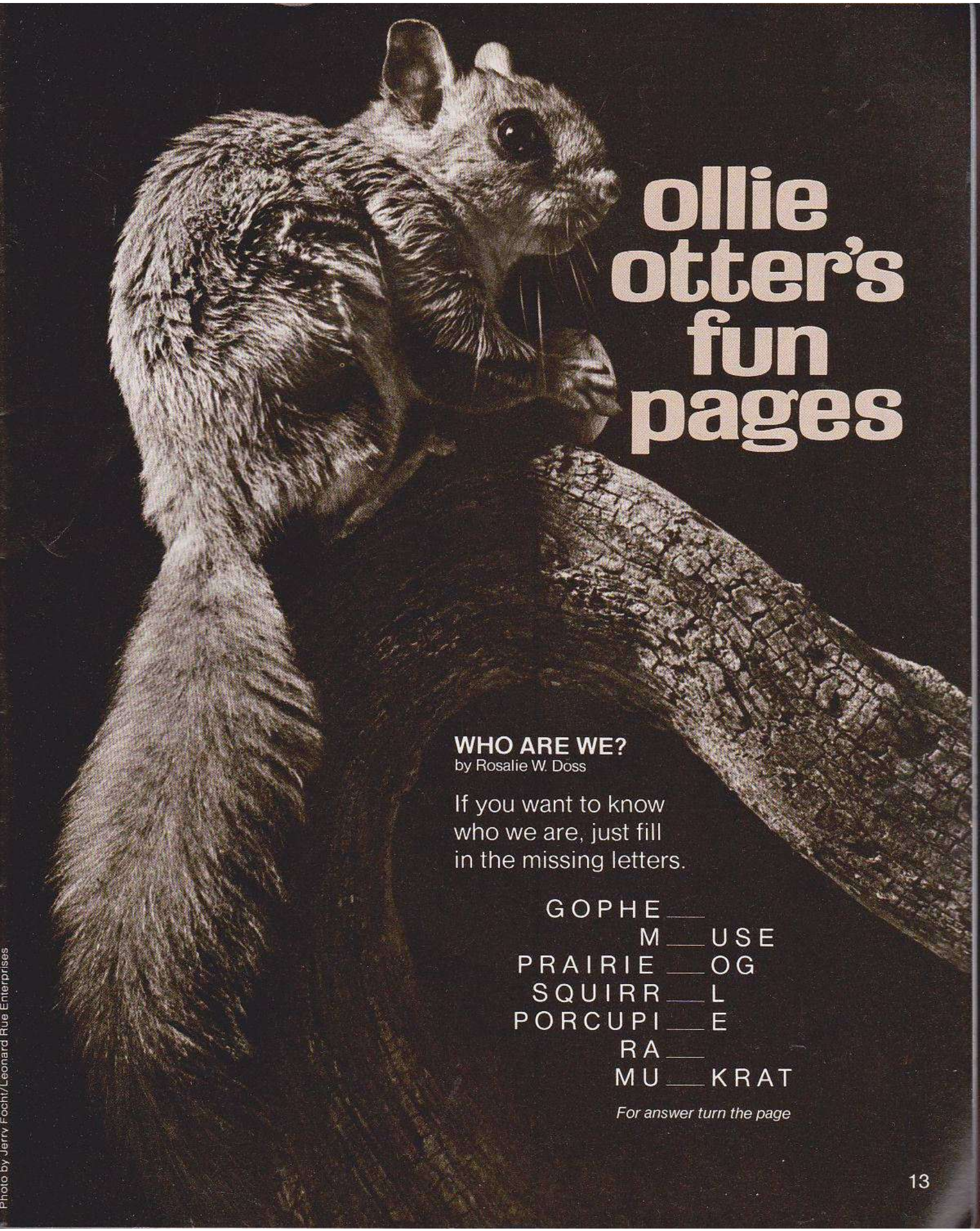
Make check or money order payable to National Wildlife Federation. (Add $1.00 for a foreign address.)
Return to: NATIONAL WILDLIFE FEDERATION
1412 16th St., N.W., Washington, D.C. 20036

I am already a member, but I have gotten a New Ranger for Ranger Rick's Nature Club. So please send my RANGER RICK MEMBER-GETTER BUTTON to me at this address:

Here is the name of the New Ranger who wants to join Rick's Club. Please enter a membership for this New Ranger right away! $7.00 payment is enclosed.

RANGER RICK'S NATURE CLUB—

The young people's membership program of the National Wildlife Federation, a non-profit, non-government conservation organization.



ollie otter's fun pages

WHO ARE WE?

by Rosalie W. Doss

If you want to know
who we are, just fill
in the missing letters.

GOPHE___
M___USE
PRAIRIE___OG
SQUIRR___L
PORCUPI___E
RA___
MU___KRAT

For answer turn the page

Photo by Jerry Focht/Leonard Rue Enterprises

WHO WENT HERE?

by Cornelia Mutel

Match the animals with how they made their tracks:

1 Bobcat: a large paw mark without any claw marks.

2 Great horned owl: faint paired brushmarks.

3 Mountain chickadee: scratch marks in a small round opening.

4 Porcupine: a trench, 10 inches wide and very long.

5 Pine squirrel: tiny paw marks that go from one tree to another and then disappear.

6 Pocket gopher and meadow vole: a long narrow tube of raised snow.

7 Deer mouse: tiny paw marks with a line between them.

8 Coyote: paw marks following a rabbit trail.

9 Snowshoe hare: 2 long paw marks followed by 2 short paw marks.

10 Mule deer: deep holes all in a row.

For answers turn to page 39

A They live in tunnels under the snow.

B They follow and hunt animals smaller than themselves.

C They drag their heavy round bodies through the snow.

D They pull in their claws when they walk.

E They put one foot in front of the next, directly beneath their body. Heavy weight pushes feet deep into snow.

F They hop through the snow, landing mostly on their 2 long hind feet.

G They drag their skinny tails behind them.

H They jump back and forth to scrape away the snow and get to their food.

I As they take off from trees, their heavy round bodies drop down and their wings touch the snow.

J They cross the snow only to reach another tree to climb.

Answer to "Who Are We?," page 13: We are RODENTS

Photo by Wilfred D. Schurig

WHO-O-O KNOWS?

by Wise Old Owl

Drawing by Lee DeGroot

Dear Wise Old Owl:

Why do roosters crow?

Barbara Malek, Mackinaw, IL

The cock's loud voice is more than an alarm clock for sleepy farmers. Roosters crow to advertise their possession of a territory. In chicken language, it probably means: "This is *my* barnyard, and these are *my* hens."

Are owls really as smart as they say?

David Bates

It all depends on whom you ask. A scientist might say that owls aren't smarter than any other bird. They just *look* smarter because they stare at you with big yellow eyes, blinking very slowly and wisely.

Of course, you'd get a different answer if you asked an owl. And since you *did* ask an owl, here's what Wise Old Owl says:

"Yes, owls are definitely as smart as they say! Yes indeedy! Some of my best friends are owls and they all say so too. W-O-O-O!"

When a loon dives under water, how can it stay under so long without breathing?

Steve Kraft, Minneapolis, MN

The same way you do—by holding its breath! A loon usually surfaces in less than a minute, but it can stay underwater as long as five minutes.

Will you please write about Abyssinian cats? My cat is an Abyssinian and he would like it.

Sarah Jackson, Northampton, MA

Abyssinians are a special breed of house cat. Is yours named Cleopatra? Or King Tut? These would be good names because the ancestors of your Abyssinian cat were worshiped as gods in Egypt thousands of years ago.

Ancient Egyptians had a long list of animal gods—bulls, apes, crocodiles, snakes, dung beetles . . . and cats! These animals were treated like kings and queens. Can you imagine *your* cat sleeping in a cage made of gold? Or eating from gold plates? Or wearing a gold necklace instead of a flea collar? Well, that's how the Egyptians fussed over their furry cat-gods.

When these cats died, they were made into mummies—just as Egyptian kings were. The mummies were buried in tombs or special cat cemeteries. Sometimes cats were buried with their favorite toys and food. When scientists opened one little coffin, they found a kitten mummy and a row of tiny mouse mummies.

SEASIDE

Photo by Harry Rogers

DOLPHINS

Dolphins are very smart,
They are always in my heart.
It always seems to me,
That they are in the sea.

Sometimes I wish,
That a dolphin was a fish.
I like the color of his fins
And it is the same as his skin's.

I dream of them among the waves
Swimming after people they save.
He goes among the deep blue sea,
Oh! How I wish he would come to me.

Christina M. Billetdeaux, Johnstown, PA

SEA STORM

When a storm erupts
And the waves go up and down,
It's like a GIANT going,
"SH-SH-SH!"
And the wind blows
From his huge mouth.

Heather Brown, Age 7, Kensington, CT

THE SEA

The sea is
An unusual garden
With creepy, little things . . .
Seaweed, an octopus,
And a squiggly starfish.

Marilyn Dornfried, Age 7, Kensington, CT

THE WHALE

Down by the ocean deep and blue
Not found in any zoo,
I find the great blue whale there.
I look with loving care
I try not to scare it away
For it lies with the ships at bay.
When the sun goes down
I suddenly frown
For my whale is going away.

Lisa Krueger, Age 12, Mineola, NY

OCEAN HAIKU

Swimming fish near the
Shore . . . Red like the sun's color . . .
Flipping funny tails.

Tommy Erkson, Age 7, Kensington, CT

THE SEA SHORE

The ocean is a magic potion,
It is always in motion,
I'm in a daze as I watch the waves,
The cry of a gull—
Oh, nothing is dull by the sea.
There are many creatures
In the sea that none can see,
Not even me.
Covered by foam, I'm in a dome,
Another world; there is nowhere else
I can be me more than by the sea.

Anna Wallacavage, Age 11, Springfield, PA

Return

Story and Photos by Jack Egan

How would you like to live on a desert island with 10,000 birds for company? Or walk the steep sandy beaches of a tiny island at night—catching, tagging and weighing 400-pound giant sea turtles?

That's exactly what I and six other biologists from St. Thomas, in the U.S. Virgin Islands, decided to do last summer. Our expedition leader, Bill Rainey, is a "turtle man." No, he doesn't look like a turtle! But he knows just about everything known about turtles, and he's always ready to learn more.

Bill invited us to travel with him to Isla Aves (EES-lah AH-vay), a desert island in the Caribbean. There we would spend five weeks studying the giant Atlantic green turtles that come to lay their eggs in the lonely sands.

Isla Aves is a Spanish name meaning Island of Birds. It belongs to Venezuela in South America. If you look at the map, you will see just where Aves is.

In the 15th and 16th centuries, when Spanish treasure-hunters sailed the Caribbean and pirates also rode the seas, Aves had a different name. It was known as Isla Tortuga, Turtle Island.

But on that Saturday morning in August, when we were still a mile out at sea, we understood why the Venezuelans had decided to call it Isla Aves. It was because of the seabirds! Thousands of them!

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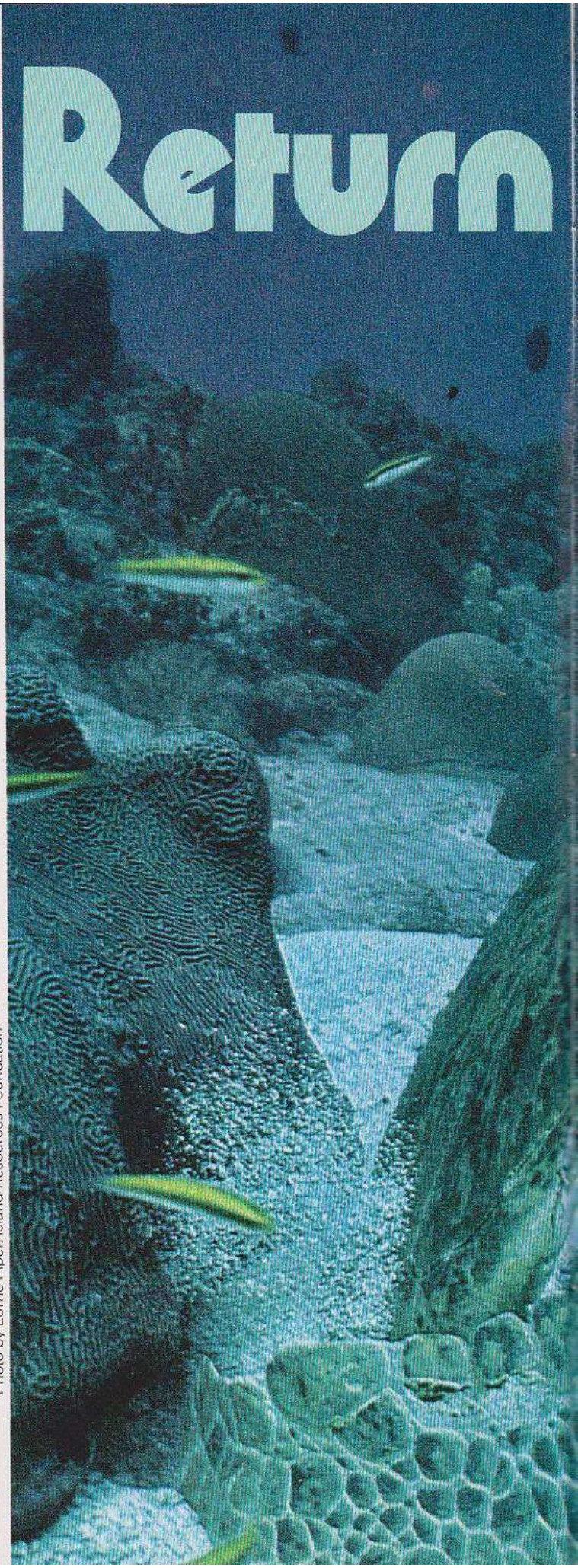
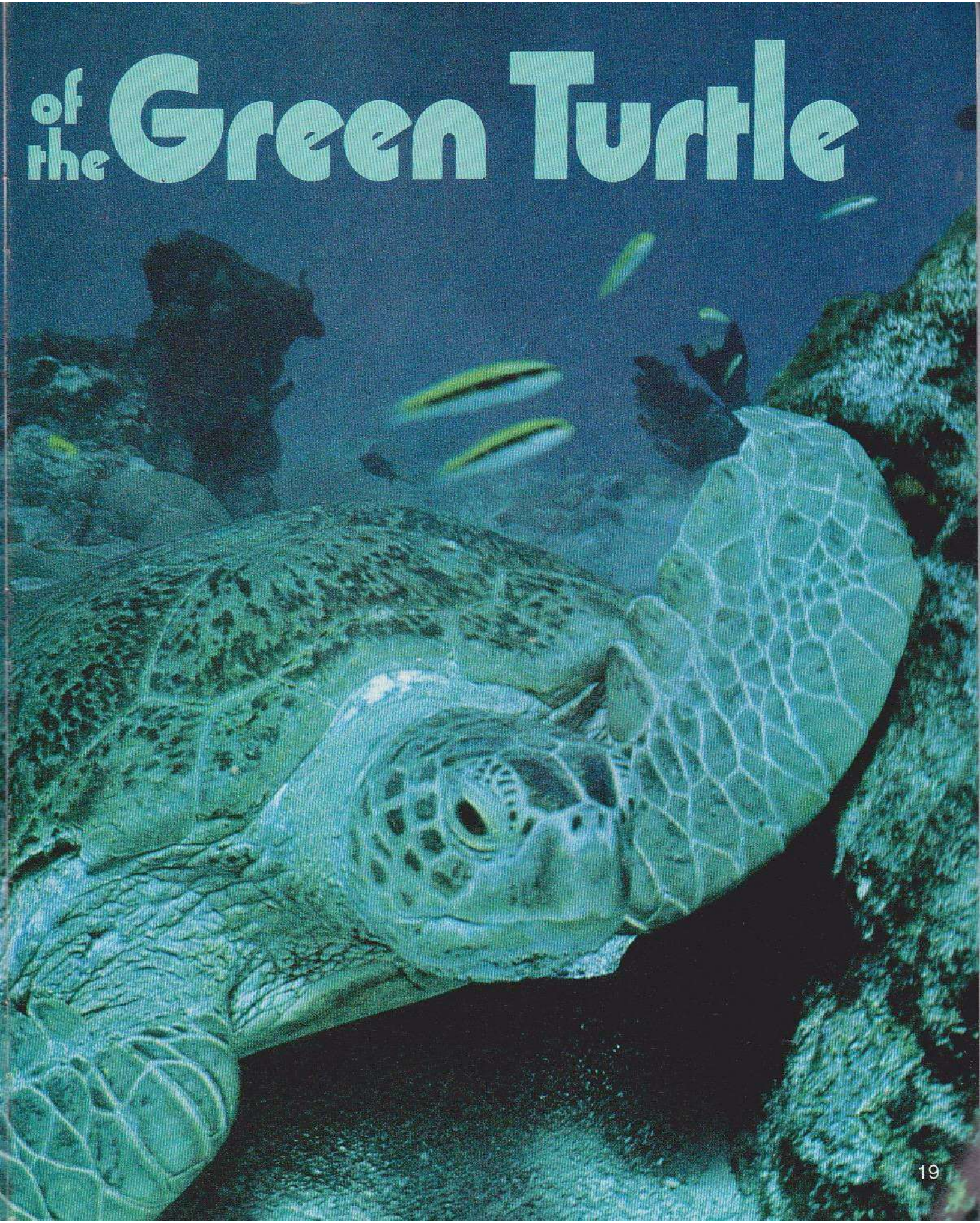


Photo by Lorrie Piper/Island Resources Foundation

The green turtle waited offshore. After dark she would crawl onto the beach.

of the Green Turtle



They circled up off the island, and some came out to the ship as if to greet us. One floated by perched on a bobbing coconut!

After we landed we set up our camp and our ship sailed back to St. Thomas, leaving us alone on our little slipper-shaped sandbar.

Aves is so small that I could throw a stone across it at its widest point. And it is only about two city blocks long. We all got into the habit of walking around with our heads down to make sure we didn't accidentally step into the sea!

Just like a big family, each one of us had a special job on Aves. Bill Rainey and his wife, Suzan, took charge of turtle research. We all helped them at night to measure, tag and weigh the big female greens that came ashore to dig nests.

Will Brownell and his wife, Carolyn, and Carlos Guzman—all from Venezuela—were our fish experts. They went diving in the blue waters to see what kinds of marine life lived around Aves. Jeannie Thurston helped them take pictures and I was doctor, radio-man and motion-picture photographer.

There was plenty to keep us busy during those five weeks!

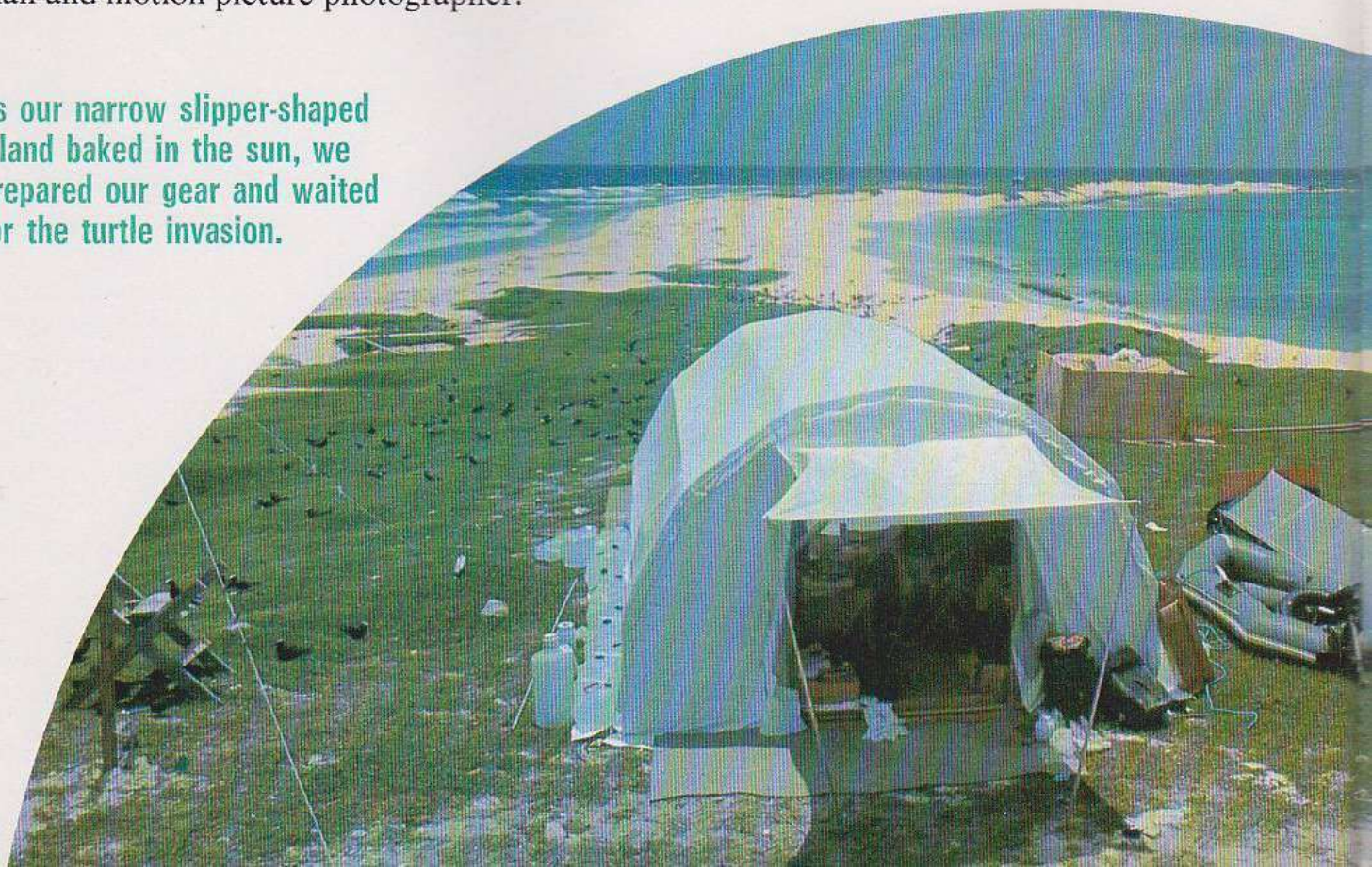
With thousands of birds on our doorstep, it isn't surprising that we took a lot of bird pictures, is it? There were mostly sooty terns and noddy terns. The *noddies* are ash-colored and as big as robins.

The *sooties* are telephone black and snowy white. They're also called *wide-awakes,* and we soon found out why. They stayed awake all night! And they made a terrific racket when we frightened them—so loud we had to plug our ears.

There were a few frigate birds, too. They were very big, the size of turkey vultures. They would sit on the only two piles of rock on the island, lording it over the ground-nesting terns.

But this was a turtle expedition, so let me tell you about the turtles.

Atlantic greens are *big.* They stand only about as high as a big cocker spaniel, but they weigh almost as much as a small piano!



As our narrow slipper-shaped island baked in the sun, we prepared our gear and waited for the turtle invasion.

They are grazing animals, just like cattle. Turtles graze on shallow undersea pastures of plants called "turtle grass."

Bill Rainey has gone to Aves every summer since 1971—to tag nesting greens. Over the years, he has gotten a good idea of how many turtles come to Aves—fewer than 1500 females. Yet the stories of just 30 years ago tell of *thousands* of turtles. They came by the hundreds each night to lay their eggs in the damp sand.

A female green lays about 140 eggs in the nest she has dug, each one the size of a ping-pong ball. During the three months each female spends near the nesting beach, she may nest as many as eight times. That means she lays more than 1000 eggs. But where are all the turtles?

Something must happen to them, or we would see many, many more today than we do. Can you guess what it is?

Yes, there are natural predators. Ants, crabs and sea gulls try to catch the hatchling turtles after they crawl from their eggshells and scurry down to the water. Sharks and barracuda grab them as they swim out to sea to begin their "childhood." Sometimes a shark will catch an adult too. But the biggest predator of all is . . . *man.*

Photo by William E. Rainey/Island Resources Foundation

No wonder they call it Island of Birds—we had 10,000 noisy terns to keep us company!

By Venezuelan law it is now illegal to hunt turtles on Aves. This law was made so the big greens might have a chance to increase their numbers. If people let them alone while nesting at Aves, more baby turtles would grow up to reach "turtle grass" areas where they would be caught for food just as some animals are hunted in certain seasons in the United States.

But while we were on the island, three boatloads of people showed up. They were there to kill the turtles and sell the flesh for food, the fat for cooking, and the shells for jewelry. We tried to explain that what they were doing was not only wrong but illegal, and that soon they would have no turtles to hunt. But they would not listen. They stole seven of the greens. They flipped them over on their backs and dragged them down the beach to their boat.

People have taken—and may still be taking—several hundred female greens a year from Aves. If they continue to be taken illegally, soon there will be no tiny baby

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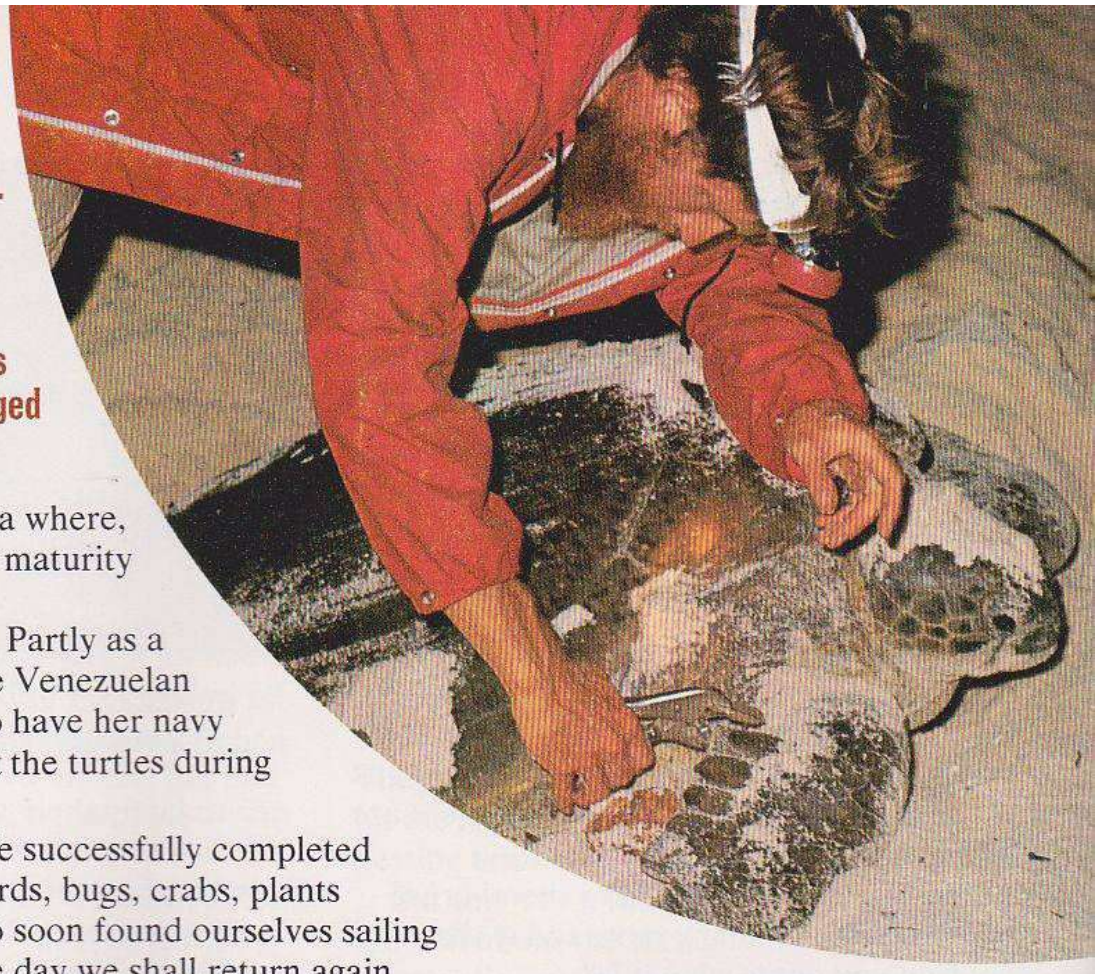


Finally the giant greens hit the beach. Sand flew as the turtles scooped out nests for their eggs. As soon as the turtles began laying, we tagged and measured them.

turtles scampering to the sea where, with luck, they can grow to maturity and lay eggs of their own.

But things seem brighter. Partly as a result of our expedition, the Venezuelan Government has decided to have her navy patrol the island and protect the turtles during the nesting season.

And there you have it. We successfully completed our studies of the turtles, birds, bugs, crabs, plants and fish of Aves, and all too soon found ourselves sailing home. But I'm sure that one day we shall return again to Turtle Island!

The End

RANGERS: Turtles in trouble? Yes, but your Ranger Rick Nature Club or you and your family can do something to help save them. Your donation of $25.00 will help in this very important conservation effort to save a rare and valuable creature.

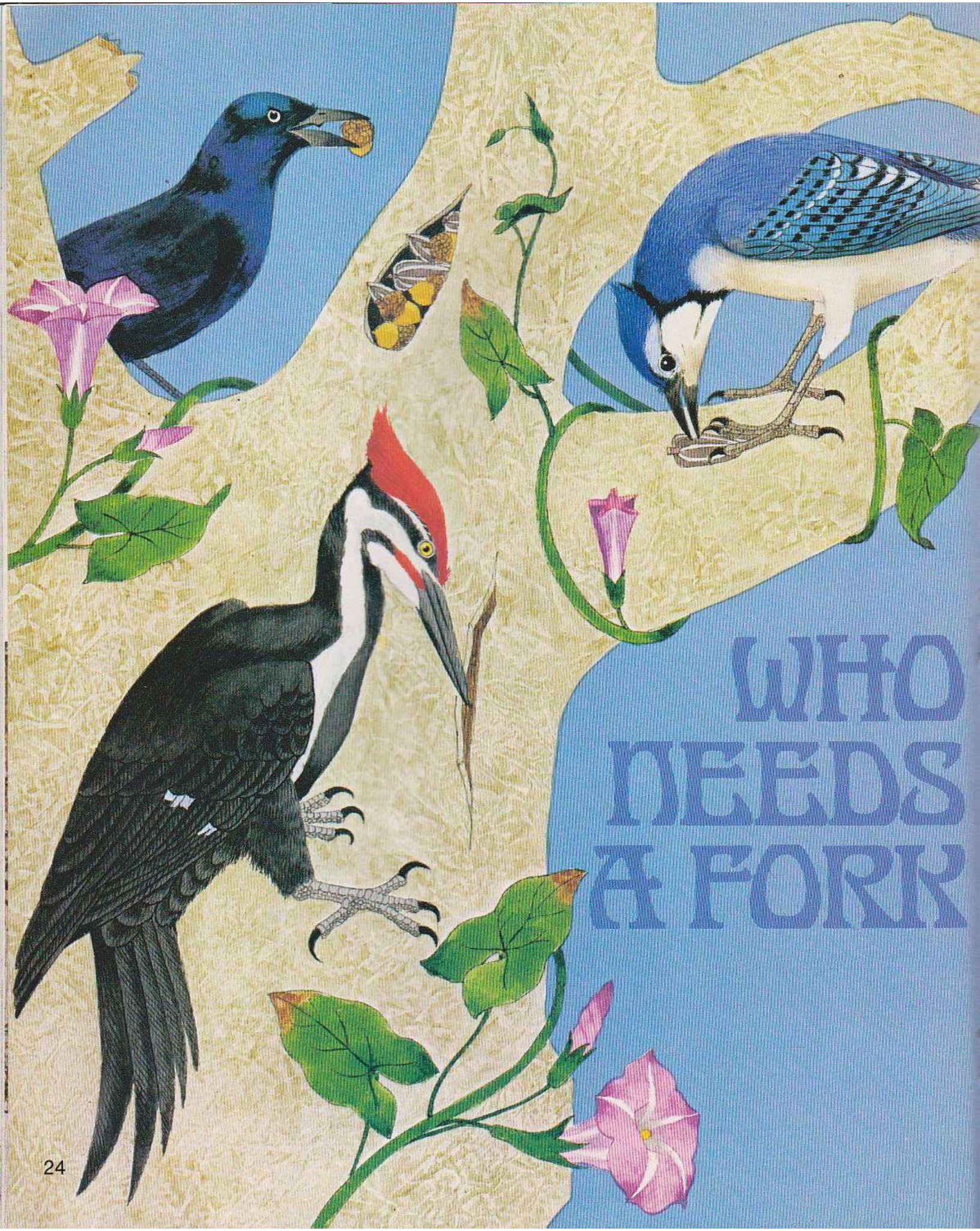
The Island Resources Foundation needs funds to continue tagging sea turtles to learn about their habits. But more exciting for you, they will tag a turtle with any name that you choose. Your club or you and your family can decide on a name to be put on a numbered tag and then attached to a turtle. The Foundation will send you a certificate with a photograph of a green turtle on it. They will also include the tag number, the turtle's scientific name and the date and place where your turtle was tagged!

Then wait to see whether your turtle turns up again. If it does, the Foundation will let you know.

If you want to name a sea turtle, send your name and address, the turtle's name and a check for $25.00 to ISLAND RESOURCES FOUNDATION, INC., P. O. Box 4187 RR, St. Thomas, U.S. Virgin Islands 00801.

Ranger Rick

Weeks later baby turtles burst from the sand and scrambled for safety in the sea.


WHO
NEEDS
A FORK

by Eileen T. Jones

Have you ever seen a bird use a tool or even a knife and fork? Probably not! Birds don't need these tools, because each bird has something special to use instead—its bill.

If you've ever touched a bird's bill you know it is hard, like your fingernails, or a cow's horn. A bird's bill has upper and lower jaws, called mandibles (MAN-deh-balls), just as your mouth does. The upper jaw is attached to the front of the skull. In most birds it doesn't move much. The lower jaw moves up and down easily because it is attached to the back of the skull on a hinge.

The biggest job for a bird's bill is getting food. Since birds eat all kinds of food, their bills come in many shapes and sizes. And birds use them in many of the ways we humans use our tools.

A bird's bill may work simply like a pair of *tweezers.* Watch a *robin* in your yard, pulling a worm out of the ground with its tweezer-like bill.

Can you imagine a bird using its bill as we use a *can opener?* A *purple grackle* has a blade-like "tooth" on the roof of its upper jaw. To open an acorn a grackle turns it around and around in its mouth. The sharp "tooth" slices the shell in two. The shell drops off and the grackle gulps down the acorn.

The cone-shaped bill of an *evening grosbeak* is so strong that it works as a *nutcracker.* Two hard ridges in each jaw crush fruit seeds when the grosbeak closes its mouth. If you get close enough to a grosbeak eating cherries, you can hear the "crunch" as the hard pits break open.

Some birds open hard shells in other ways. A *blue jay* holds a sunflower seed against a branch with its feet. Then, using its bill as a *hatchet,* it chops and chops until the shell splits apart. A *nuthatch* wedges seeds in cracks of trees and then hacks away at them.

A *woodpecker's* bill is like a *chisel.* With its tail propped against a tree trunk, a woodpecker chisels a hole with its beak. Then its long, sticky tongue unwinds and picks out insects which live inside the tree.

A *hummingbird* uses its long, thin bill as a *flower probe.* It pokes its bill deep

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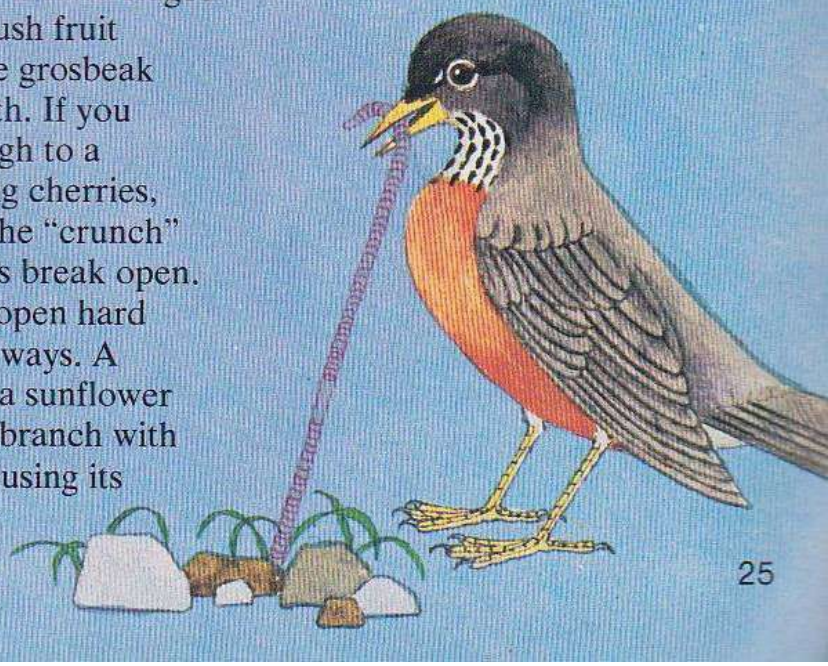


inside a flower, then flicks out its long tongue and sucks up the sweet nectar and juicy insects.

A *whippoorwill* carries a *net* as it flies through the night sky looking for insects. Long whiskers surrounding its bill help sweep prey into its mouth.

If you saw a *snipe* use its bill, you might think of a long, thin tool called a *probe,* which doctors use to reach into deep wounds. A snipe pokes its probe into mud feeling for worms, snails and insects, which it grabs and pulls out.

The fish-eating *cormorant* has a *hook* on the end of its long upper jaw. This "fish-hook" helps to grab and hold its slippery prey.

The *anhinga* (an-HIN-ga), or "snake-bird," also eats fish, but it doesn't catch them with the help of a hook. It uses a *spear* or *fork* instead. A deep-diving

Drawings by Tony Chen

anhinga spots a fish. Out darts its long, sharp bill. Then it brings its prey to the surface, flips it into the air, and gulps it down.

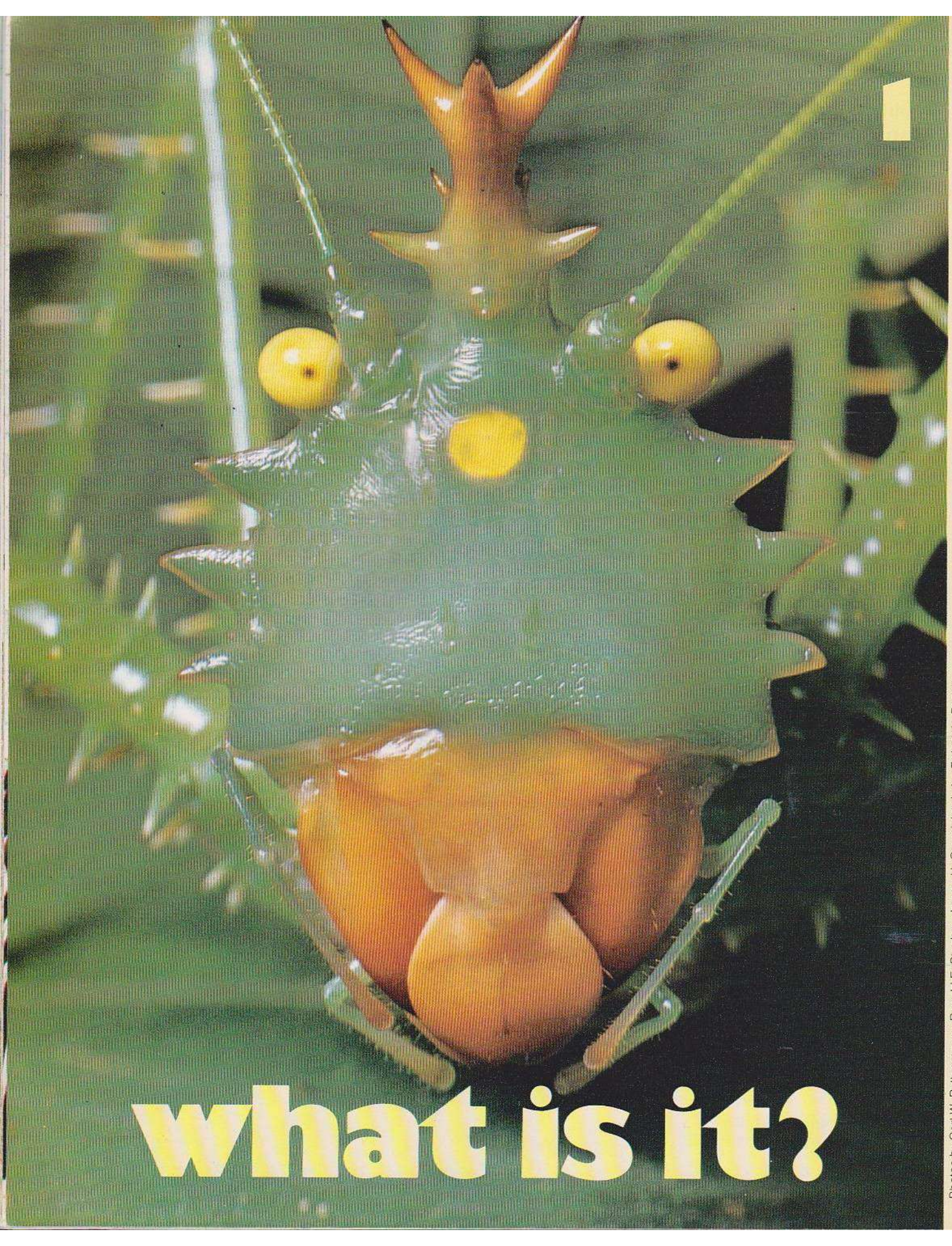
Have you ever seen someone use a steel bar called a *crowbar* to turn over heavy rocks or pry things apart? A bird called a *turnstone* uses its bill like a crowbar. It runs along a beach turning over stones and looking for snails.

An *oystercatcher* uses its bright red bill as a *crowbar* too. It slips its bill between the slightly opened shells of a shellfish. It pries them apart far enough to pull out the animal's soft body.

A large gull-like bird called a *black skimmer* uses its unusual bill as a *plow.* It flies just above a calm body of water with its lower jaw cutting through the surface. When the bill hits a small fish or shrimp, the skimmer flips the prey up into its open mouth.

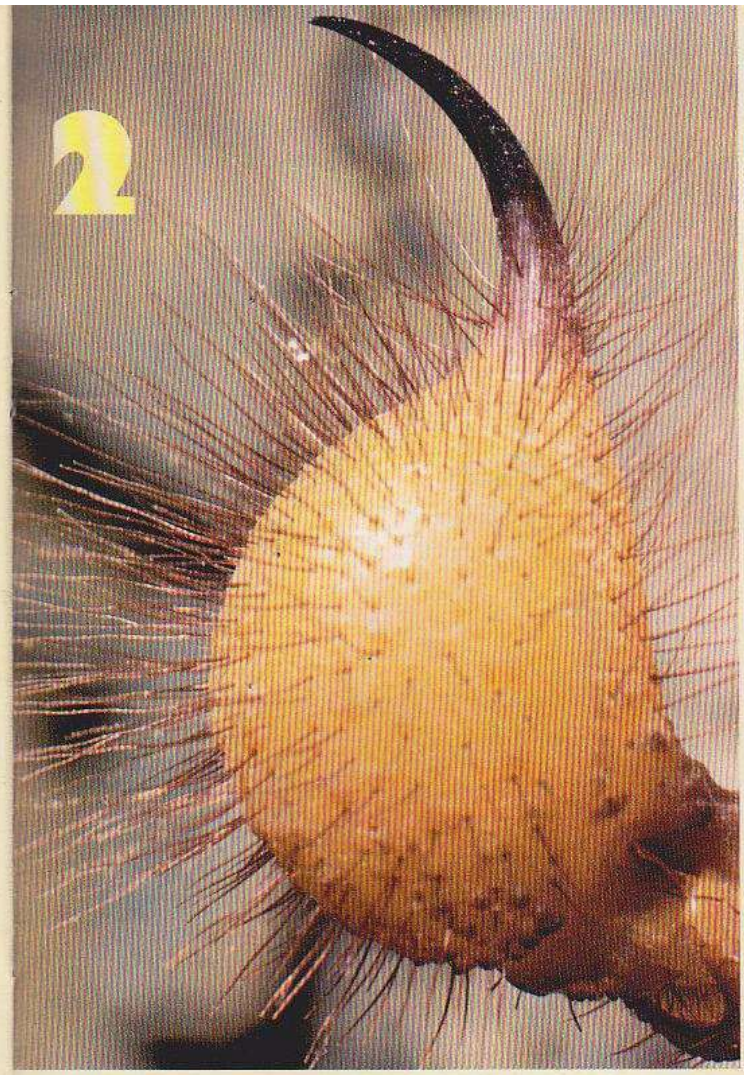
A *mallard duck* likes to eat small plants and animals that float in ponds and puddles. But rather than use its bill as a plow, it uses it as a *strainer.* The bill is wide and large, and has a row of grooves along the edge of the bottom jaw. As the duck snaps its bill closed again and again the food collects in its mouth and the water drains out.

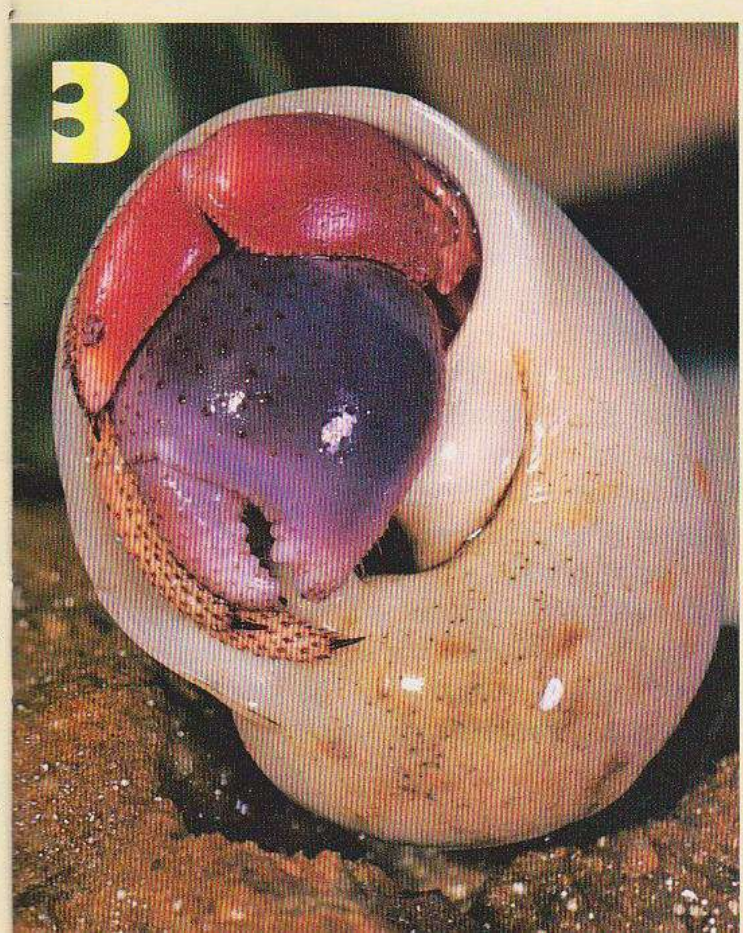
There are still other kinds of bills for getting food. Go out and see if you can discover some of them. If you were a bird, wouldn't you say to yourself, "Who needs a fork?" *The End*

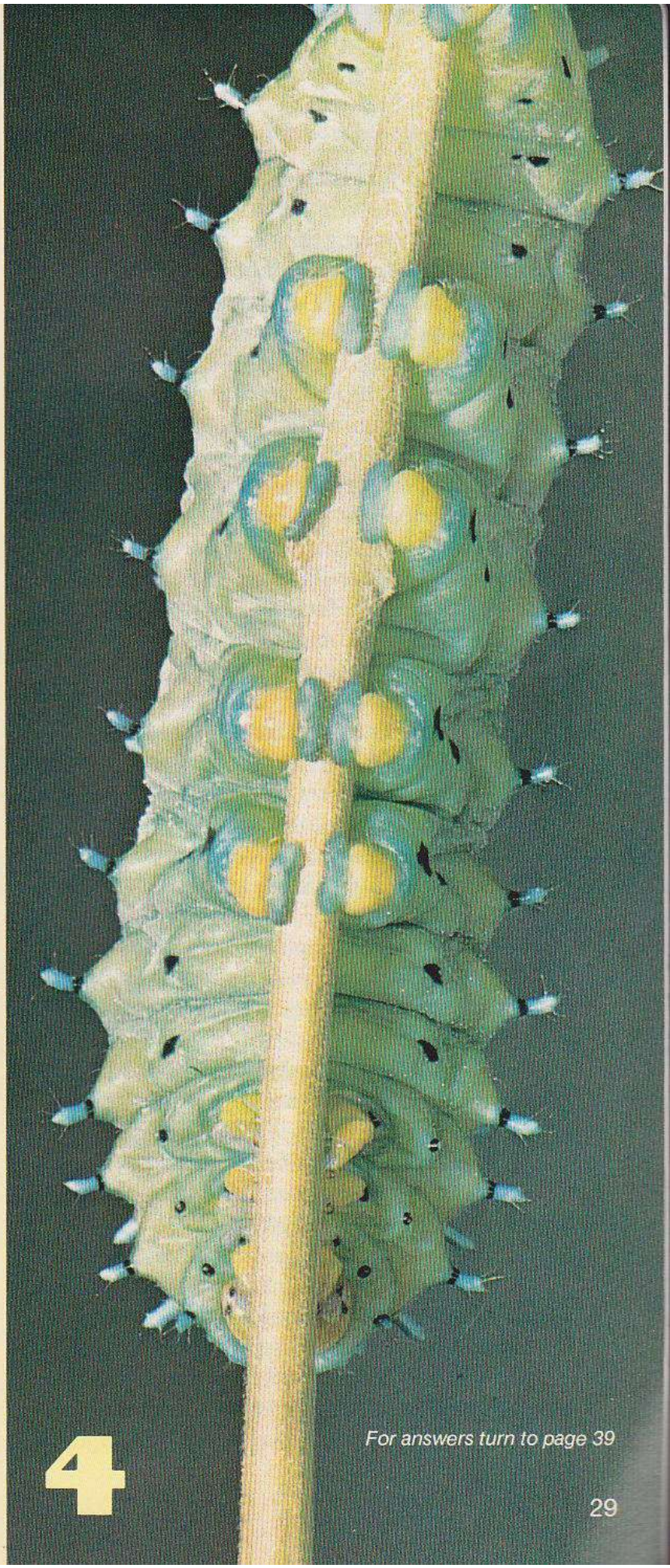


what is it?

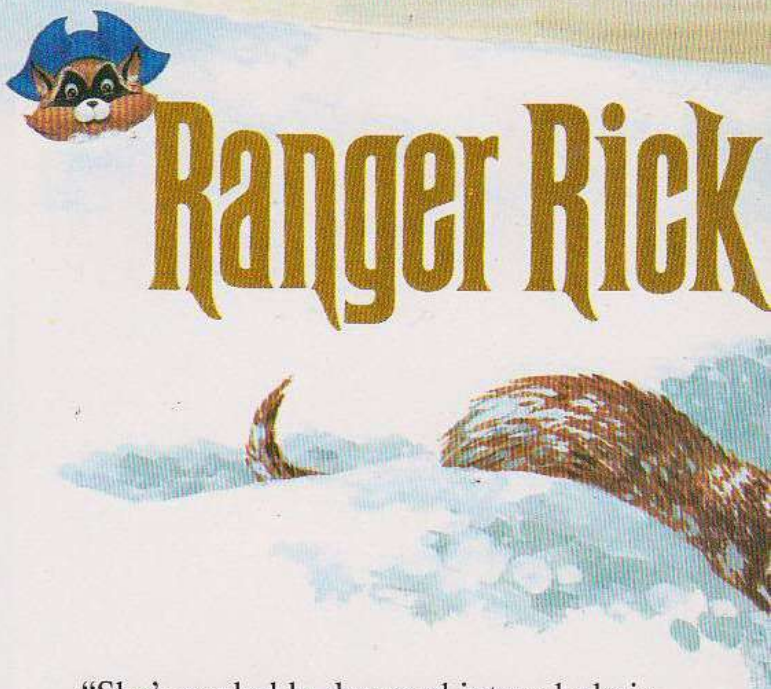
Photos by Carl W. Rettenmeyer; Ronald E. Stecker; James H. Carmichael, Jr.; Robert L. Dunne







For answers turn to page 39



Adventure #88
Meet a Four-Legged Snowplow
by Robert A. Brownridge

"Wow! What a snowstorm that was!" exclaimed Ranger Rick Raccoon as he stuck his head out from under the snow. He reached back down and pulled out his back pack with all of the equipment in it.

"I don't think I've ever seen this much snow," said Ollie Otter as he poked his head up and looked around.

"It's still so cold," said Becky Hare. "I'm glad we dug into the snow and waited for the storm to end. We never could have found our way."

"I can't believe I agreed to come out here in this freezing weather just to see some animal you think might also be considered Bicentennial Animal of the Year," complained Bobby Beaver, shaking snow from his head. "What other animal could possibly deserve to be chosen as much as we beavers?"

"You'll see, Bobby," laughed Rick. "But remember, it's up to my Rangers to decide on the Bicentennial Animal of the Year. Come on, let's get moving so we can find our friends."

Rick led off through the soft, deep snow. Ollie and Bobby Beaver trudged behind him. It was slow going. They kept sinking down into the white powder with every step. Becky Hare hopped along on top of the snow with her huge feet supporting her weight easily.

"Everyone keeps kidding me about my big feet," chuckled Becky. "I'll bet you wish you had them right now!" She hopped on ahead of the slow-moving group. In a matter of minutes she looked like a bouncing white snowball. Suddenly she disappeared from view.

"Where's Becky?" asked Bobby Beaver.

"I don't know. She was up ahead a minute ago," said Ollie.

"She's probably dropped into a hole in the snow. She'll pop up again in a minute," said Ranger Rick as he continued to lead the way. Suddenly he too dropped out of sight of the others.

"Now where did Rick go?" asked Ollie in a puzzled voice.

"Something fishy is going on and I'm not sure I like it," added Bobby in a frightened voice. "Maybe that other animal is going to try to get rid of me. Then he can be sure of being the Bicentennial Animal of the Year. Hey, Rick! Where are you?" he shouted.

"Here I am, down here," came Rick's muffled voice.

Bobby Beaver leaped ahead to see where the voice was coming from. Suddenly he too tumbled head over heels down a steep snowbank. He landed flat on his back on a rough, hard-packed surface.

Ollie moved cautiously forward until he could look down on his friends. From where he stood he could see a long deep path plowed through the snow.

"Funny place for a path," he said curiously. "Who made it?"

"That other candidate for Animal of the Year," answered Rick. "Buffalo. A herd of buffalo must have passed by here just this morning."

and his friends

"It was nice of them to clear a path for us," said Ollie. "Boy, they sure must be big!" he added.

"They are big, Ollie," replied Rick, "The males weigh about a ton and they move almost like small army tanks. When the herd is moving, they just push the snow with their bodies and pack it down with their hoofs. Years ago frontier people and pioneers followed the buffalo trails through the snow for miles on their trips west."

"That's not so great," said Bobby Beaver, "if they only cleared a path in the snow."

"Buffalo trails also helped early travelers when there was no snow on the ground," laughed Rick. "Usually their trails led to water. Many times, too, they showed the shallow places where wagons could safely cross rivers and streams. Let's keep moving. I want to find the herd that made this trail before it gets dark. They shouldn't be too far ahead of us."

The four friends moved along quickly on the hard-packed snow. Finally way up ahead they caught sight of the herd.

"Wow, they *are* big!" exclaimed Bobby. "No wonder they left such a clear trail for us to follow."

Suddenly one of the biggest buffalo turned and saw Rick and his friends following them. With a snort he trotted back to greet them.

"Look out! There's one coming this way!" shouted Bobby. Forgetting where he was, he turned to run and ran smack into the snowbank at the side of the trail. It caused a minor avalanche and Bobby was left flat on his back, covered with snow.

"No need to be afraid," called the buffalo. "My name is Bill. I'm really very friendly."

"Do any of your friends call you Buffalo Bill?" asked Ollie with a chuckle.

"Not if they're smaller than I am," answered Bill, puffing out his massive chest. "Besides I'm really a bison, not a buffalo. People have called us that wrong name for years. So we're used to it now."

"Yes, sir, Mr. Bison, sir," said Bobby, shaking—mostly from fright but pretending he was really getting the snow out of his fur.

"Some of my Rangers wrote in and nominated the buffalo—oops—bison for the Bicentennial Animal of the Year," explained Ranger Rick. "They feel that you have done

Please turn the page

more to help develop America than any other animal."

"You've got some very smart Rangers," chuckled Bill. "Everyone knows how the bison provided food, shelter and clothing for American Indians for thousands of years before white people came. Then we did the same thing for the pioneers as they moved to settle the West. Besides that, while crossing the huge flat plains where there are no trees or wood to burn for fires, the early settlers used buffalo chips—dried droppings—for fuel. Lewis and Clark found out how difficult heading west could be. And they probably would have starved to death without buffalo."

"Yes, but didn't you have a rough time when the railroads brought more people out west?" asked Becky.

"We certainly did," answered Bill. "That brought more troubles than we could handle. We always had to fight natural hazards like blizzards, prairie fires, floods, tornadoes and drought. But the railroads brought people who killed us just for our hides. Our thick winter coats made great robes, and our skins made fine leather. People also killed us just for the fun of it. In the early 1800's there were 30 to 70 million of us roaming the plains of North America. But by 1890 there were only about 500 of us left.

"Conservationists tried to help us, but it wasn't until 1894 that a good law was passed to protect us. The U.S. government finally collected the few of us that remained and put us under its full protection. Now we live in national parks, wildlife preserves and on people's ranches. Today there are about fifty thousand of us in the United States and Canada.

"And the future looks better all the time," continued Bill. "Some ranchers are shifting from raising cattle to herding buffalo. They see it as a way to cut down the high cost of meat. Cattle are fattened on expensive grain. But we bison grow fat on just plain old grass. People are also experimenting with a mixture of cattle and buffalo. They crossbreed them and call them 'beefalo.' They hope to develop animals that have the best qualities of cattle and buffalo. If that's not a help to the country, I don't know what is!"

"Hey, what's that rumbling?" asked Becky.

"Sounds like the herd is starting to move on. I'd better go join them," said Bill. He turned and galloped off around the herd through the powdery snow. With every mighty leap he kicked up a white cloud. Just as he reached the head of the herd at the top of a small rise, he suddenly disappeared in a spray of water.

"What happened?" asked Becky with alarm. She ran off across the top of the snow toward where Bill had fallen from sight. Rick, Ollie and Bobby scampered after her as quickly as they could through the path that Bill had made.

"He's fallen into the river," shouted Becky.

When Rick got there, Bill was struggling in a fast-moving stream that was filled with ice. Every time Bill tried to get out, the ice broke under his weight. Time after time he got his front hoofs up on the ice, but each time it broke and each time he fell back into the water.

Drawings by Lorin Thompson

"We've got to help him or he'll drown!" shouted Rick.

Quickly he reached into his back pack and pulled out a long, sturdy rope.

"Ollie, you and Bobby take one end of this rope and tie it around Bill's horns," ordered Ranger Rick. In a flash Ollie and Bobby splashed into the water.

Ollie was the first to reach the struggling buffalo. As he reached out to slip the rope over his horns, the terrified buffalo tossed his head and Ollie went flying through the air. Luckily he landed in a pile of soft snow.

Bobby Beaver quickly grabbed the rope, made a noose like a lasso and tossed it over Bill's head. In the meantime, Rick had given the other end of the rope to Becky and she had tied it to another buffalo.

"Pull," shouted Rick. Lowering its head, the other buffalo gave a mighty heave. Bill crashed through a few feet of ice near the shore. In seconds his feet hit solid ground. Wearily he stumbled up the snow-covered bank. Bobby held onto his tail and got a free ride up to the top.

"There would have been one less buffalo if you hadn't moved fast!" said Bill with appreciation. "Thanks very much for your help. Thank you, too, Bobby. You were a good sport to help save an animal that's also been nominated for the Bicentennial award. If I don't win, I hope you do. You know, the way you threw that rope, you'd make a good cowboy too!"

Everyone laughed.

"The rest of the herd has moved on, Bill," called the other buffalo. "We'd better catch up with them."

"Let me know if we win the Bicentennial Animal of the Year award," called Bill.

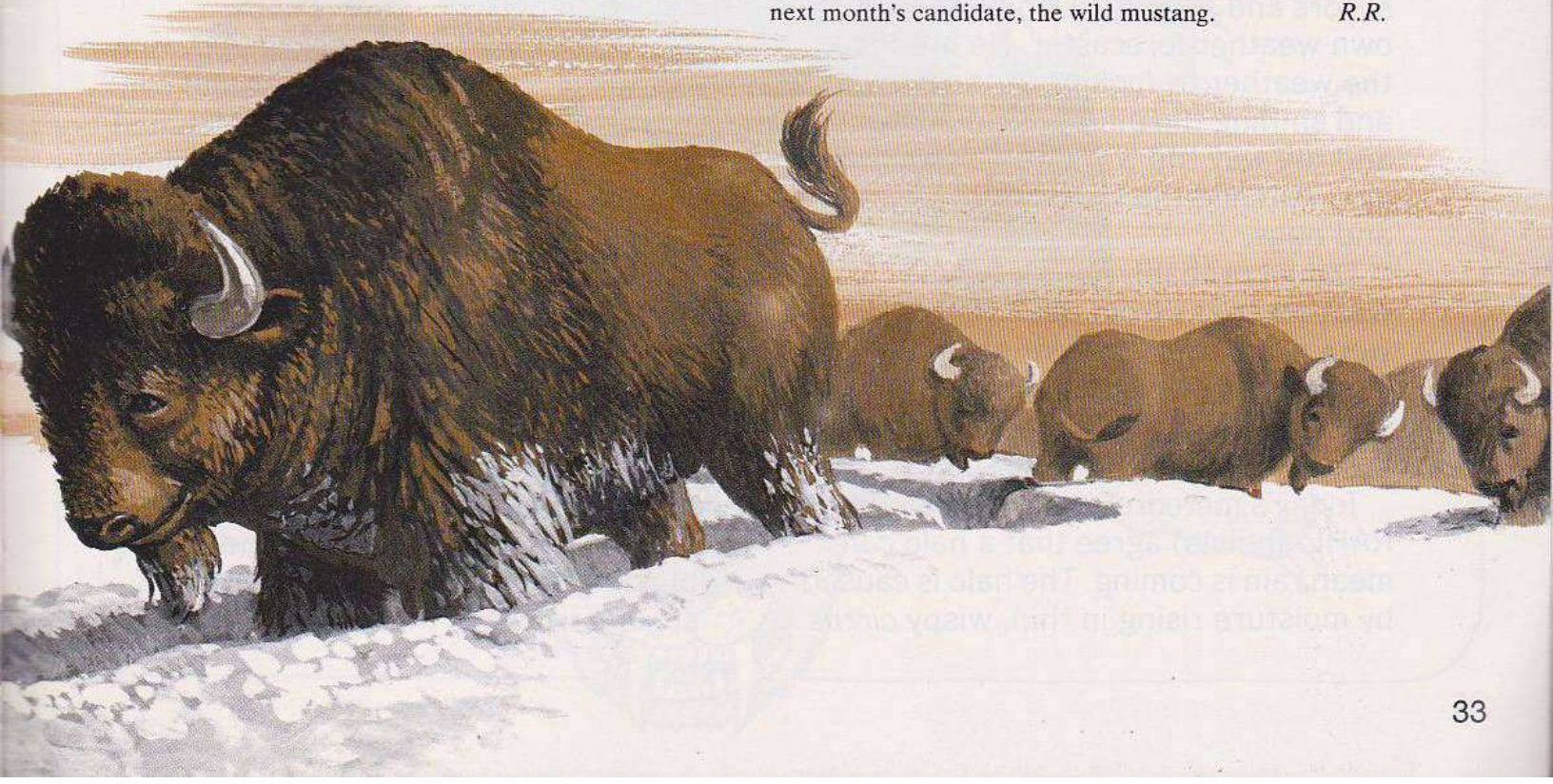
"You'll know in July," answered Rick. "We've got a few more candidates to tell our Rangers about. Thanks for telling us about the role the buffalo played."

"Right now I would like to make a nice fire and warm up a little bit before going on," said Ollie.

"Good idea, Ollie," said Rick. "But what will you use for wood?"

"Buffalo chips," shouted Bobby, "just like the pioneers!" *The End*

Hi, Rangers: In July you'll get a chance to vote for your choice of Bicentennial Animal of the Year. Don't miss next month's candidate, the wild mustang. *R.R.*



WEATHER OR NOT

by Beverly Mowbray

Daniel Boone tied a rawhide thong around the pile of beaver pelts and leaned against his cabin door to watch the red sunset. "If it doesn't rain tomorrow, I'll take my pelts to the trading post," he said to himself. He brooded awhile about how rain would make his pelts wet and smelly and heavy to carry. "Better check the forecast," he decided. Daniel Boone walked into the cabin and flicked on his TV: "And now here's tomorrow's weather forecast."

Silly? You bet! Even if he had owned a TV or radio, Daniel Boone wouldn't have needed them to predict the weather. Like other colonial woodsmen, sailors and farmers, Daniel was his own weather forecaster. He predicted the weather by looking at the sunset and sniffing the air. He studied clouds and the way the wind was blowing. He also watched the behavior of birds and bugs.

Daniel probably learned some weather tricks from the Indians, who were experts at observing natural signs. They knew that:

A halo around the moon means rain will come soon.

Today's meteorologists (me-tee-oh-RAHL-ah-jists) agree that a halo *can* mean rain is coming. The halo is caused by moisture rising in thin, wispy *cirrus* clouds. As the clouds move higher into the cold air, the moisture freezes into tiny ice crystals that shine in the moonlight. These high cirrus clouds move ahead of a warm front. When the warm front arrives, it brings lower, heavier, darker clouds . . . and rain!

Watching smoke from a campfire is another way to forecast the weather. Expect clear weather if the smoke rises straight up. Expect rain if the smoke drifts lazily and bends toward the ground. The smoke is being moved by air pressure. Cool, dry air lets smoke rise up, and warm, damp air pushes smoke down. Warm, damp air doesn't *always* mean that rain is coming, but a weather-wise camper pays attention to smoke signals.

Have you ever heard someone say, "It's going to rain. I can feel it in my bones"? It's just possible he or she is feeling a change in air pressure. As low-pressure air moves in before a rainstorm, it causes a slight change in blood pressure. And then some people start to feel aches and pains in sensitive parts of their teeth, bones or skin.

Some people say ants are weather prophets. They say that ants build tiny mounds around the entrances to their tunnels before a rainstorm, and stop building about an hour before the storm arrives. Is this true? *Please turn the page*

WET
H
2

Drawings by Lee Bonner/Eucalyptus Tree Studio Inc.

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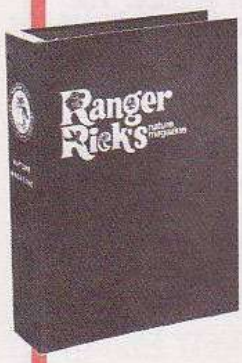

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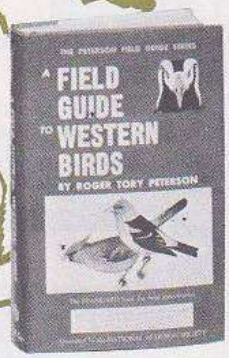
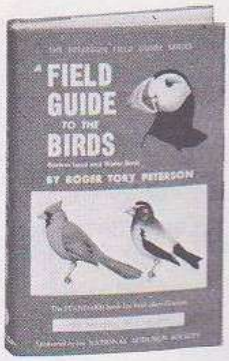
Hey Ranger! welcome the birds to your yard!





BE A BIRD EXPERT in your own neighborhood (or the next time you go hiking or camping). You can quickly identify many different kinds of birds with these valuable handy books edited by Roger Tory Peterson. There are descriptions, range maps and lots of other interesting information. 4½" x 7½". And these are perfect gifts for grownups!

18037GB **Field Guide to Western Birds** **$6.95**
18028GB **Field Guide to the Birds (Eastern)** **$6.95**

A RANGER RICK SWEATSHIRT is the perfect thing to wear while you're looking for birds or filling the feeders. You can also wear it for school, play or anywhere! You'll be proud of the colorful picture of Rick right on the front, too. It's 95% cotton — washable and colorfast (*allow for slight shrinkage*).

30102GB **Sm. Sweatshirt (6-8 yrs.)** **$5.75**
30111GB **Med. Sweatshirt (9-12 yrs.)** .. **$5.75**
30120GB **Lg. Sweatshirt (13-16 yrs.)**.. **$5.75**

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23450GB **Songbird Identification Wheel** **$1.00**

YARD POST FEEDER. You can put this feeder anywhere in your yard and lots of hungry birds can eat from it at once. The clear plastic seed container (8" x 11" dia.) holds 4 lbs. of seed and has twist-off top for easy filling. It sits on a 6 ft. tubular steel post.

23156GB **Yard Post Feeder** **$7.50**

HANG A CLING-A-WING BIRD FEEDER from your porch, patio or tree and four small birds can feast at once. Easy-to-fill, it's 6" in diameter and holds up to 2 pounds of seed. The special funnel design inside holds the seed in the top half and releases it as the birds use their supply below. *Hanger not included.*

23110GB **Cling-A-Wing Bird Feeder** **$6.75**

WILDLIFE SAVER BIRD FEEDER. Birds like peanut butter as much as you do! That's why this special little feeder is packed with a mixture of peanut butter and bird seed. Birds can get the goodies from either side and you can bet they'll be back for seconds. Hang it anywhere and when it's empty, order a package of refill.

23012GB **Wildlife Saver** **$1.25**
23021GB **Package of Refill** **$1.25**

Be an ant-watcher and find out!

Mice, frogs and turtles are more active in the 24-hour period before a storm. Deer and songbirds start to feed heavily. Your bird feeder should also have more hungry visitors just before a storm. Watch for them.

Other birds to watch are the swallows. These weather prophets are sometimes called "storm swallows" or "rain swallows." Swallows zoom through the air hunting tiny insects—and when insects fly low, so do the swallows. When swallows fly low, rain is coming. When they fly high, sunny weather will continue.

Why do insects fly low or rest more often before a rainstorm? Some scientists believe that moisture in the air makes their wings damp and heavy. This could also explain the folk saying:

When bees stop buzzing, rain is coming.

Weather lore was passed on from generation to generation through favorite old proverbs. Here's one:

Red sky in the morning, sailors take warning. Red sky at night is a sailor's delight.

Many proverbs turn out to be true and are supported by scientific facts. Others turn out to be false.

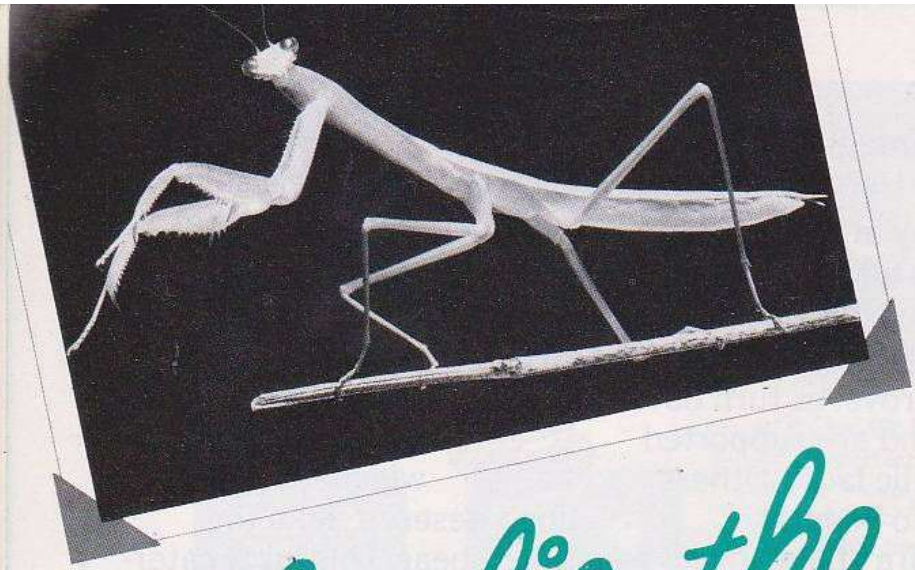
There are still many mysteries scientists haven't solved: How do flocks of swifts know enough to change their flying patterns when a hurricane or tornado is approaching? Amazingly, they become aware of the storm when it is as far away as 1300 kilometers (780 miles)! This would mean that swifts flying over Chicago could be reacting to a tornado in Atlanta, Georgia! Are the swifts reacting to air pressures? Vibrations? Sights? Sounds? Electrical charges? No one yet knows.

Scientists *do* know that some animals are very sensitive to changes in the environment. They have a "sixth sense" that human beings don't have. One morning, many years ago, in a village in Chile, South America, the skies were suddenly filled with screaming seabirds. About an hour later, the village animals also went wild. Chickens squawked, horses neighed and stomped, dogs whined. 10 minutes later, an earthquake shattered the village. The animals sensed sounds or vibrations that weren't heard or felt by human beings.

Some animals have reputations as weather prophets which they just don't deserve. Take the woolly bear: This fuzzy caterpillar has patches of black and brown hair. According to folklore, when the woolly bears in any area are more brown than black, it indicates a mild winter; when the woolly bears are mainly black, then the winter following is supposed to be hard. But you can't always believe them.

Mr. Groundhog is another unreliable weather forecaster. Supposedly, cold weather will continue for six more weeks if he sees his shadow on February 2. Hogwash! If you're curious about how long winter will last, don't watch Mr. Groundhog. Just flick on your TV and watch the weather report.

The End



Charlie the Mantis

by Edward Durrill, Age 9

Sunday

Today I found a mantis in the rabbit hutch. I put him in a coffee can and took him in the house. Mom helped me find an old aquarium in the basement and I put him in it. Then I got twigs and a jar lid filled with water to put in the aquarium. I named my mantis Charlie. Mantises eat all kinds of bugs and insects except ants. Since I don't have any bugs, I fed Charlie bits of raw hamburger. He likes it.

This afternoon I found another mantis, a little smaller than Charlie, and put him in the aquarium. He likes hamburger too.

Tonight when I showed the mantises to Dad, I wish — I wish I hadn't looked. Charlie had eaten the other mantis. All that was left were the wings and the head.

Monday

When I hold my finger in front of Charlie, he rears up and boxes with me. A mantis will attack anything that moves. The mantis is the only insect that can look over its shoulder. It can move its head in the same way that people can. Charlie is called a praying mantis because it holds its forearms in a praying position for long periods of time. Sometimes it is called the Nun, the Soothsayer, or the Devil's rearhorse.

Tuesday

Charlie isn't Charlie! Today she made an egg case and filled it with eggs. The white, pastelike material came from the tip of her tail. She fastened the case to the side of the aquarium.

I changed Charlie's name to Charlene.

Wednesday

Every day I feed Charlene hamburger. She tries to climb out of the aquarium, but I put a piece of newspaper over it.

Thursday

Sometimes it is hard to see Charlene because she is green and brown and looks like a twig. She stays very still in the same place for a long time. The egg case is turning light brown and is very hard.

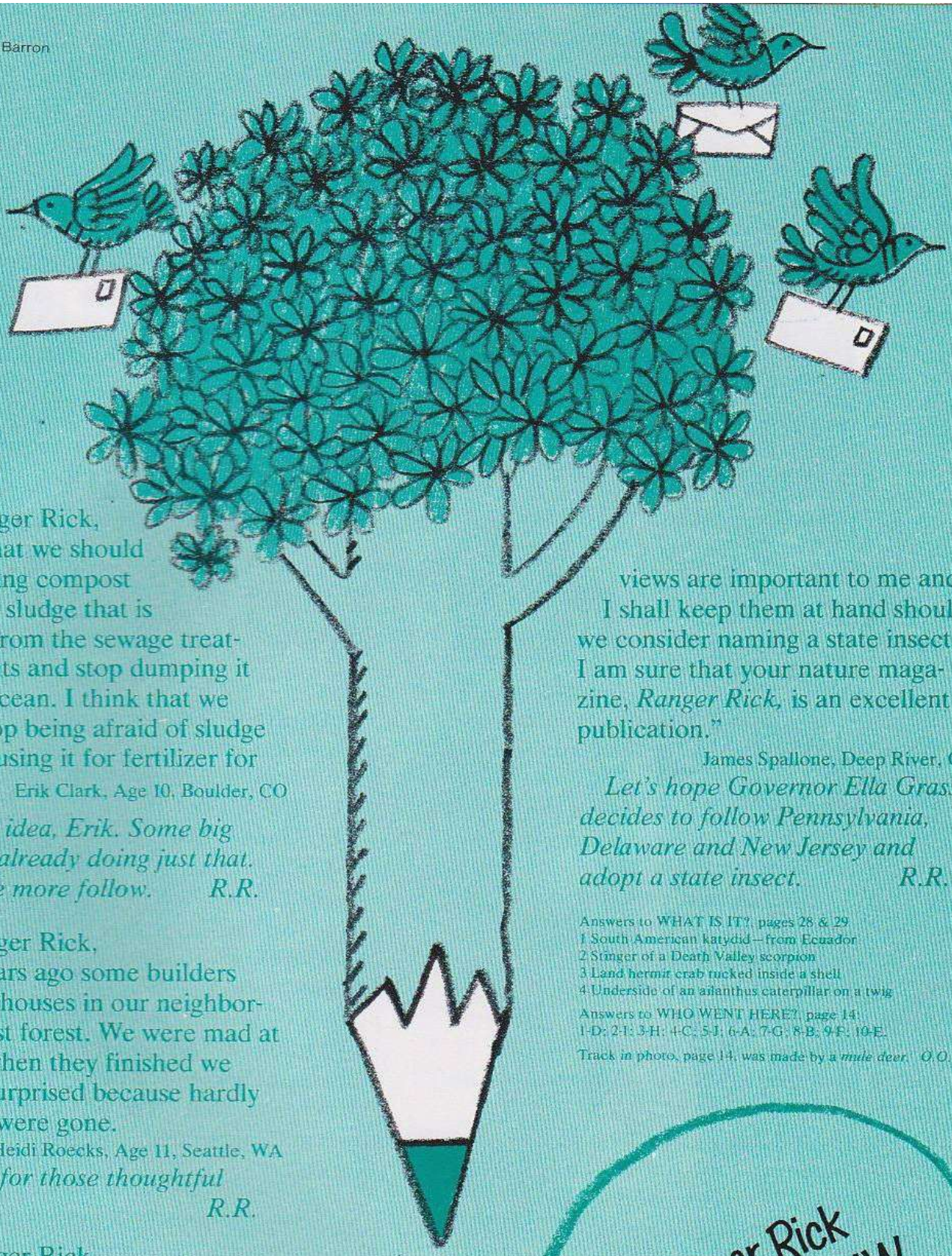
Friday

Today Charlene died.

The End

Photos by Robert L. Dunne

Drawing by Bill Barron



Dear Ranger Rick,

I feel that we should start making compost out of the sludge that is left over from the sewage treatment plants and stop dumping it into the ocean. I think that we should stop being afraid of sludge and start using it for fertilizer for our grass. Erik Clark, Age 10, Boulder, CO

A good idea, Erik. Some big cities are already doing just that. Let's hope more follow. *R.R.*

Dear Ranger Rick,

Two years ago some builders built four houses in our neighborhood's best forest. We were mad at first but when they finished we were all surprised because hardly any trees were gone.

Heidi Roecks, Age 11, Seattle, WA

Hurray for those thoughtful builders. *R.R.*

Dear Ranger Rick,

I read your article about the states adopting a state insect. So I wrote to my Governor. She said, "Thank you for your letter concerning a state insect. Your views are important to me and I shall keep them at hand should we consider naming a state insect. I am sure that your nature magazine, *Ranger Rick,* is an excellent publication."

James Spallone, Deep River, CT

Let's hope Governor Ella Grasso decides to follow Pennsylvania, Delaware and New Jersey and adopt a state insect. *R.R.*

Answers to WHAT IS IT?, pages 28 & 29
1 South American katydid—from Ecuador
2 Stinger of a Death Valley scorpion
3 Land hermit crab tucked inside a shell
4 Underside of an ailanthus caterpillar on a twig

Answers to WHO WENT HERE?, page 14:
1-D; 2-I; 3-H; 4-C; 5-J; 6-A; 7-G; 8-B; 9-F; 10-E.

Track in photo, page 14, was made by a *mule deer.* *O.O.*

Dear Ranger Rick
1412 16TH Street, N.W.
Washington, D.C. 20036

Nature Club News

Something is happening here! You bet, and that something has to do with National Wildlife Week!

Rick Ammentorp, a teacher at the Dirksen Elementary School in Schaumburg, Illinois, believes strongly in doing things when Wildlife Week rolls around, as it does each year. Last year he rallied the entire school into observing this special week.

He started off by inviting teachers and students alike to wear a Wildlife "uniform" —a light-colored shirt with the Wildlife patch (it comes in the kit we suggested you send for) and blue jeans.

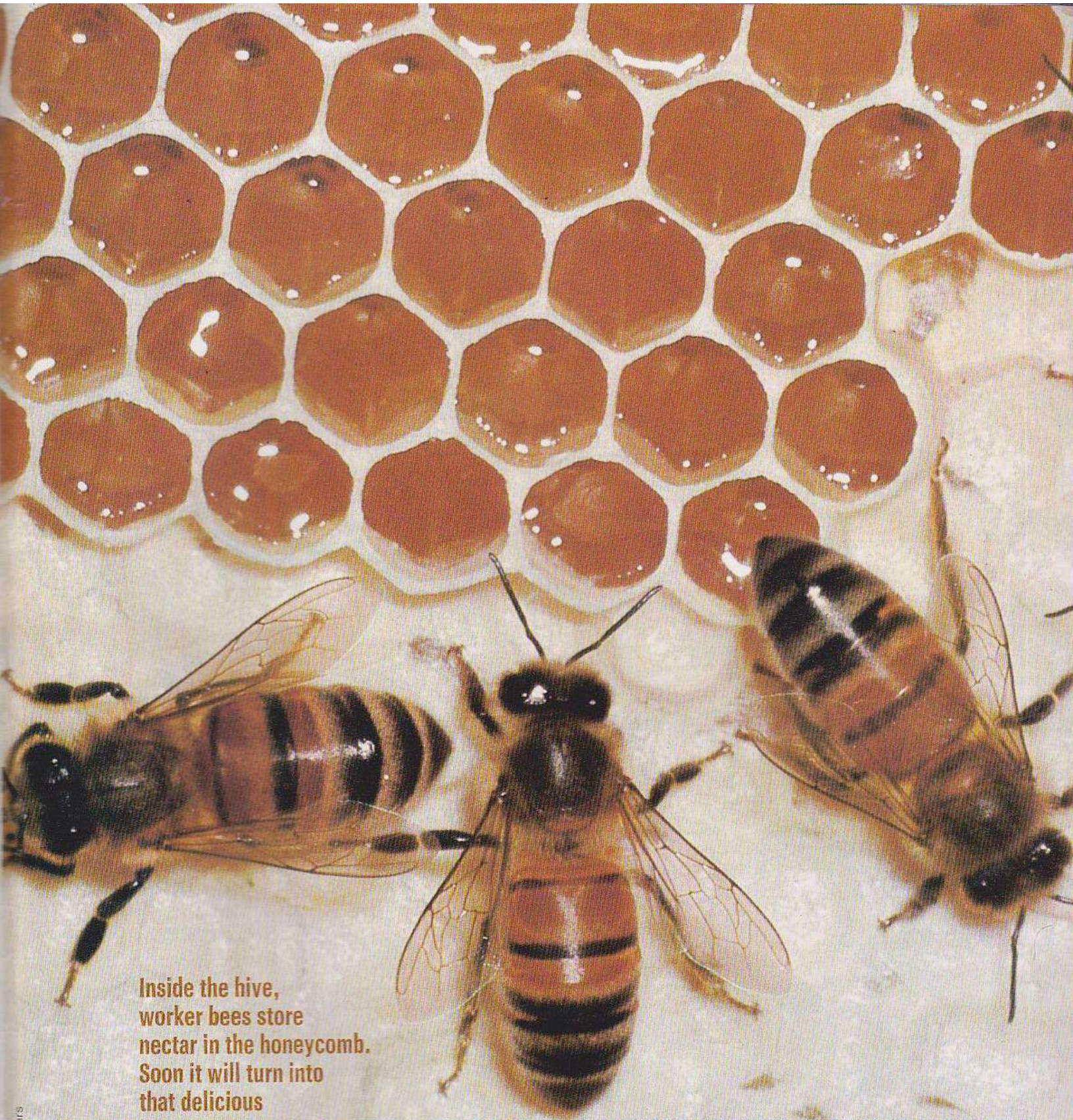
The second day was really a winner! Mr. Ammentorp took one of Ranger Rick's Adventures, "The Discovery of Little Village," and adapted it as a play. The students shown on this page were members of the cast. The play was presented to enthusiastic audiences at Dirksen and at a neighboring school as well. The neighboring school principal thanked the cast by giving each one a cool ice cream bar!

On the days following, special films covering a wide variety of wildlife were shown in the library. Teachers signed up so that their students could see the films.

Mr. Ammentorp's students also made many colorful posters to be put around the school. Those showing the Wildlife Week theme were painted on the glass panels beside the door to the school office. They were so interesting that they remained in place long after the week was over.

We think Mr. Ammentorp summed up the success of Dirksen's Wildlife Week celebration when he said, "The 635 kids at Dirksen all seem to agree that concern for wildlife is important!" *The End*

Rangers: There is still time to order your Wildlife Week kit, if you hurry. It contains a poster, shoulder patches and a booklet of activities. Order your children's kit by sending your name and address on a postcard to Dept. C-76, National Wildlife Federation, 1412 16th St., N.W., Washington, DC 20036. Also a teacher's and leader's kit is available from Dept. T-76 at the same address. R.R.



Inside the hive, worker bees store nectar in the honeycomb. Soon it will turn into that delicious

STICKY SWEET

Photo by Harry Rogers

by Madeleine Furey Livaudais

What kind of honey was on the last biscuit you ate? Chances are that it was clover honey. It is the most common honey produced and eaten in the United States.

Actually there are hundreds of kinds of honey—each named for a kind of flower because that is where honey comes from, by way of the honeybees.

Bees visit flowers in order to gather nectar and pollen to take back to the hive for food.

Old-fashioned hives were straw. The sticks were used to lift the lid. Today you can see wooden hives set in orchards. Bees pollinate the fruit trees while making honey.

Some of the pollen that clings to the bees' body hairs brushes onto the next blossoms they visit. This fertilizes the blossoms from which seeds later develop.

Flowers need the bees, and the bees could not live without flowers.

Back at the hive the bees feed some of the nectar to the growing bees. The rest is made into honey and stored in the honeycomb for later use. When beekeepers take honey from the hives to sell they are very careful to leave more than enough for their little workers.

Bees like to stay with one kind of flower but will usually gather nectar from whatever flowers are handiest. If a beekeeper moves his or her hives near an orange grove, the bees will make orange blossom honey. Some beekeepers even transport their bee colonies hundreds of miles in order to gather nectar from certain plants.

In addition to clover and orange blossom honey, there is raspberry honey, of light and delicate flavor; there is buckwheat honey, which is very dark and tangy. In the Southwest, there is mesquite honey.

For thousands of years people have enjoyed eating honey. Even the ancient Egyptians raised honeybees. They didn't have sugar cane or sugar beets (from which we get most of our sugar today); fruits and honey were their only sources of sweets.

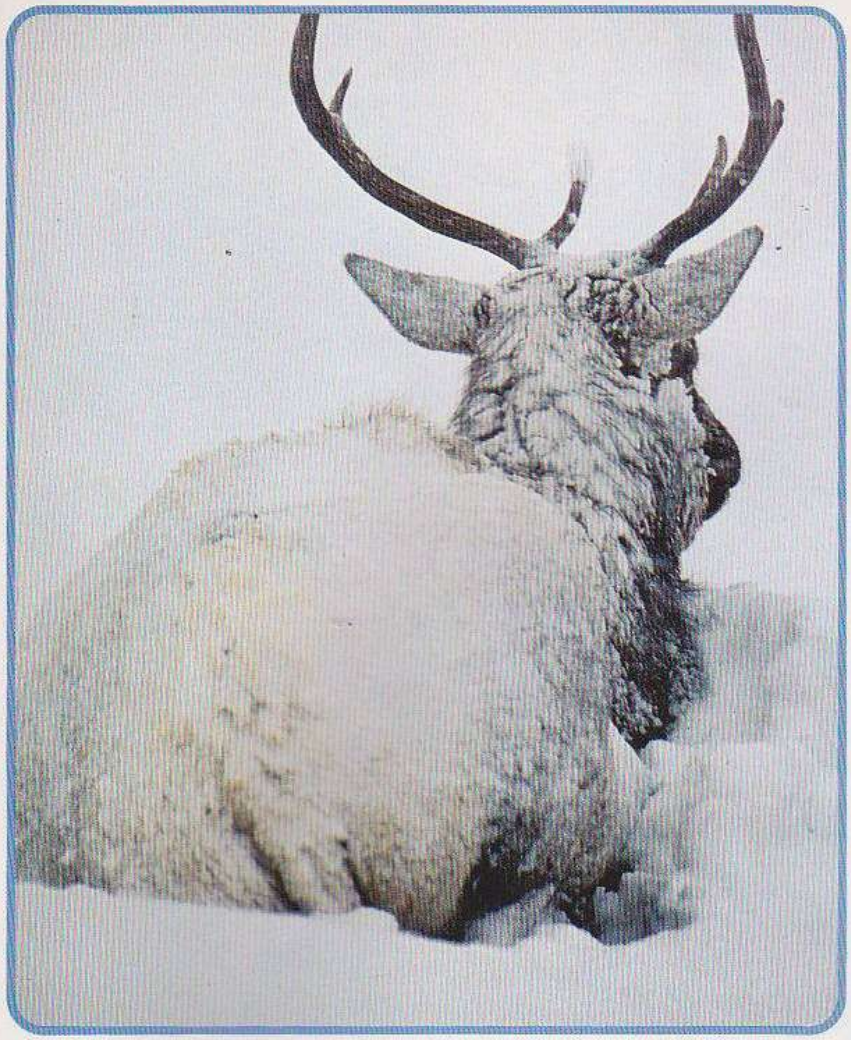
Look along the shelves of your grocery store. You will probably find some of the more popular kinds of honey. Specialty food stores have many varieties. Maybe you'll decide to become a beekeeper or honey expert one day. At any rate, you will have learned to appreciate the busy little workers who produce your honey! *The End*

During a life less than two months long, the honeybee will collect enough nectar to make one half teaspoon of honey!

Photos by Robert L. Dugger; Grant Heilman; Earl Kubis/Tom Stack & Assoc.

Five feet deep and snow is still falling! A female elk finds shelter in the bed of a little creek. Her mate flops down in the open and gets coated. A hungry coyote keeps on hunting for mice under the snow but ends up with nothing but a face full of white. A herd of bison huddle together. The wind drives the snow sideways, frosting their coats. Oooh, it's cold—30°F below zero!

SNOW STORM



Photos by Steven C. Wilson; (top right) Jon Cates

It's over! The warm sun feels good to the mule deer as they scout a hillside looking for dried grass. A bobwhite quail pops up from his temporary snow cave. He survived the storm, but how will he find seeds? The luckier porcupine will have no trouble—he'll just eat the twigs that shelter him. If the animals find enough food they'll be ready for the next snow storm. *The End*

Photos by Jon Cates (46); Stephen J. Krasemann (47)

Does a woolly bear caterpillar with more black fur than brown mean a cold winter is coming? Find out about this and other weather tales on page 34.